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TEXTILE ORGANON

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WORLDWIDE MAN-MADE FIBER SURVEY

HIGHLIGHTS:

- Worldwide Survey -
  - Fiber Demand
  - Production and Producing Capacities
  - Utilization Rates
  - Directory of Producers
  - Ownership Listing
  - Olefin Fiber Production

Featuring....

Our annual production and planned capacity survey, and a worldwide directory of man-made fiber producers.

Worldwide production (Tables 1-8) is reported in thousand metric tons. These tables will be published again in the July issue showing data in millions of pounds. Country data on available supply will be published in the ***Organon*** as soon as we receive this information.

Pre-1980 data for most of the tables in this issue can be found in the ***Textile Organon Base Book*** (1962) and subsequent June issues of the ***Textile Organon***. The cotton demand figures are a new series based on worldwide consumption rather than production. This eliminates problems with the wide swings in cotton stock accumulations.

TABLE 1:
WORLDWIDE DEMAND FOR CERTAIN FIBERS
THOUSAND METRIC TONS

TYPE OF FIBER	1982	1983	1984	1985	1986	% CHANGE 1986 / 1985
CELLULOSIC FIBERS						
YARN+MONOFILAMENTS	1023	1040	1029	1026	1036	*+1.0*
STAPLE+TOW	1922	1989	2065	2006	1949	*-2.8*
TOTAL CELLULOSIC	2945	3029	3094	3032	2985	*-1.6*
NONCELLULOSIC FIBERS						
YARN+MONOFILAMENTS	4480	4851	5210	5583	5721	*+2.5*
STAPLE+TOW	5666	6265	6638	6975	7392	*+6.0*
TOTAL NONCELLULOSIC	10146	11116	11848	12558	13113	*+4.4*
TOTAL MAN-MADE [a]	13091	14145	14942	15590	16098	*+3.3*
% of World Total	*44%*	*46%*	*46%*	*46%*	*46%*	
NATURAL FIBERS						
RAW COTTON [b]	14738	15062	15528	16619	17181	*+3.4*
RAW WOOL [c]	1624	1636	1672	1675	1684	*+0.5*
RAW SILK [d]	55	55	55	56	56	*0*
TOTAL NATURAL	16417	16753	17255	18350	18921	*+3.1*
% of World Total	*56%*	*54%*	*54%*	*54%*	*54%*	
WORLD TOTAL	29508	30898	32197	33940	35019	*+3.2*
World Total %	*100%*	*100%*	*100%*	*100%*	*100%*	

The silk and man-made fiber data are on a calendar year basis, while the figures for cotton and wool are on a seasonal basis.

a. Man-made fiber data are from tables 2 and 3. Textile glass fiber, olefin and acetate cigarette tow production are not included.

b. International Cotton Advisory Committee. New series based on cotton consumption data.

c. Commonwealth Secretariat & The Wool Bureau, Inc. data are on a scoured basis. Also see December 1986 *Organon*.

d. International Silk Association; Food and Agriculture Organization of the United Nations.

Textile Organon

A Monthly Review

JUNE 1987

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Total man-made fiber production registered it's fourth straight increase in 1986, rising 3% from the 1985 level. In 1986 production was 16,098 thousand metric tons, 23% above the 13,091 thousand metric tons produced in 1982.

Noncellulosic fiber production was the source of man-made fiber production increases, while cellulosic fiber production declined slightly in 1986 and has remained essentially unchanged over the past five years.

The overall increase in noncellulosic fiber production was 4% between 1985 and 1986. Noncellulosic yarn production went up 2.5% with staple+tow rising 6%.

Noncellulosic Fiber Production - Major Growth Areas

	% Change 1986/85
• Other Asia	+12.8
• China, PRC	+10.8
• Eastern Europe	+6.1
• U.S.A.	+1.9

1986 market shares for the major growth areas are: Other Asia 21%; China, PRC 6%; Eastern Europe 13%; and U.S.A. 22%.

Worldwide Production Gains for Selected Fibers

	% Change 1986/85
• Polyester Staple	+8.6
• Nylon Staple	+5.7
• Polyester Filament Yarn	+3.3
• Acrylic+Modacrylic	+2.6

In 1986, the U.S.A. accounted for 33% of total nylon yarn and staple production. Other Asia produced 28% of total polyester filament yarn and staple in 1986, while the U.S.A. produced 21%.

Noncellulosic Fiber Producing Capacities in Selected Countries

	% Change 1987/86	
	Yarn	Staple+Tow
• China, PRC	+10.5	+14.1
• India	+21.6	+4.6
• Indonesia	+31.0	+31.3
• Korea, Rep. of	+9.3	+5.3
• Taiwan	+9.1	-2.5
• U.S.A.	-0.9	-2.8

An estimated 488 thousand metric tons is expected to be added to noncellulosic producing capacity in 1987. The increase in yarn capacity is projected to be 286 thousand metric tons and staple+tow 202 thousand metric tons.

% Utilization Rates: 1986 Production/Average Capacity*

	Yarn	Staple+Tow
• Worldwide	74.7%	79.4%

NOTE: For the first time we have estimated utilization rates by fiber type and by area. (See Table 5)

* Based on an average of 3/86 & 3/87.

TABLE 2:
WORLDWIDE NONCELLULOSIC FIBER PRODUCTION & PRODUCING CAPACITY BY COUNTRY EXCEPT OLEFIN
THOUSAND METRIC TONS

COUNTRY	ACTUAL PRODUCTION								
	1982			1983			1984		
	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL
WESTERN EUROPE									
AUSTRIA	0	16.2	16.2	0	18.0	18.0	0	18.1	18.1
BENELUX[a]	70.6	19.2	89.8	61.9	21.3	83.2	65.5	23.0	88.5
FINLAND	0.5	0	0.5	0.5	0	0.5	0.5	0	0.5
FRANCE	64.8	125.3	190.1	63.2	135.1	198.3	60.2	133.6	193.8
GERMANY, FED. REP.	319.0	350.0	669.0	339.2	393.0	732.2	352.0	379.0	731.0
GREECE	8.5	9.3	17.8	9.0	10.0	19.0	9.0	10.0	19.0
IRELAND	12.3	28.0	40.3	11.0	32.0	43.0	11.5	37.5	49.0
ITALY/MALTA	148.7	280.0	428.7	142.5	312.6	455.1	154.0	370.4	524.4
PORTUGAL	0.9	38.0	38.9	1.0	39.0	40.0	1.0	42.0	43.0
SPAIN	73.6	157.8	231.4	64.6	173.2	237.8	77.6	176.8	254.4
SWITZERLAND	53.4	27.0	80.4	58.0	28.0	86.0	69.7	28.3	98.0
TURKEY	45.1	80.2	125.3	48.0	104.5	152.5	52.5	120.7	173.2
UNITED KINGDOM	66.5	137.8	204.3	80.0	147.7	227.7	83.5	154.0	237.5
TOTAL WESTERN EUROPE	**863.9**	**1268.8**	**2132.7**	**878.9**	**1414.4**	**2293.3**	**937.0**	**1493.4**	**2430.4**
EASTERN EUROPE									
ALBANIA	0	0	0	0	0	0	0	0	0
BULGARIA	13.5	38.0	51.5	18.0	42.0	60.0	20.0	43.8	63.8
CZECHOSLOVAKIA	52.9	35.9	88.8	54.0	36.2	90.2	60.0	38.6	98.6
GERMANY, DEM .REP.	65.0	78.9	143.9	69.0	82.0	151.0	68.5	86.0	154.5
HUNGARY	7.6	12.7	20.3	7.6	13.2	20.8	8.0	13.5	21.5
POLAND	80.0	54.7	134.7	88.4	72.6	161.0	91.4	75.0	166.4
ROMANIA	41.0	112.0	153.0	45.0	112.5	157.5	53.0	116.5	169.5
USSR	322.8	265.0	587.8	345.0	277.0	622.0	372.8	291.5	664.3
YUGOSLAVIA	27.0	47.5	74.5	29.0	50.0	79.0	33.0	52.0	85.0
TOTAL EASTERN EUROPE	**609.8**	**644.7**	**1254.5**	**656.0**	**685.5**	**1341.5**	**706.7**	**716.9**	**1423.6**
TOTAL EUROPE	**1473.7**	**1913.5**	**3387.2**	**1534.9**	**2099.9**	**3634.8**	**1643.7**	**2210.3**	**3854.0**

Y Yarn+monofilaments.
S Staple+tow+fiberfill.
a. Includes Belgium, Netherlands and Luxembourg.

ACTUAL PRODUCTION						PRODUCING CAPACITY					
1985			1986			3/1987			12/1988		
Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL
0	18.1	18.1	0	15.0	15.0	*0*	*21.0*	*21.0*	*0*	*22.0*	*22.0*
71.0	29.0	100.0	73.0	34.0	107.0	*99.5*	*59.0*	*158.5*	*99.5*	*59.0*	*158.5*
0.5	0	0.5	0.5	0	0.5	*0.6*	*0*	*0.6*	*0.6*	*0*	*0.6*
60.7	124.0	184.7	61.2	106.0	167.2	*86.0*	*133.0*	*219.0*	*86.0*	*133.0*	*219.0*
360.0	402.0	762.0	347.0	399.0	746.0	*409.0*	*433.0*	*842.0*	*416.0*	*433.0*	*849.0*
9.0	10.0	19.0	9.0	10.0	19.0	*17.7*	*12.0*	*29.7*	*17.7*	*12.0*	*29.7*
11.5	44.0	55.5	13.0	61.0	74.0	*14.0*	*65.5*	*79.5*	*14.0*	*65.5*	*79.5*
170.0	388.0	558.0	173.0	396.0	569.0	*189.7*	*420.0*	*609.7*	*189.7*	*420.0*	*609.7*
1.0	49.0	50.0	0	55.0	55.0	*0*	*58.0*	*58.0*	*0*	*63.0*	*63.0*
85.0	189.0	274.0	83.0	186.0	269.0	*118.0*	*222.7*	*340.7*	*118.0*	*222.7*	*340.7*
72.0	27.5	99.5	68.0	27.0	95.0	*85.0*	*32.0*	*117.0*	*85.0*	*32.0*	*117.0*
56.0	134.0	190.0	60.0	169.0	229.0	*108.0*	*215.0*	*323.0*	*110.0*	*215.0*	*325.0*
90.5	149.0	239.5	87.0	130.0	217.0	*107.0*	*191.0*	*298.0*	*107.0*	*191.0*	*298.0*
987.2	**1563.6**	**2550.8**	**974.7**	**1588.0**	**2562.7**	***1234.5***	***1862.2***	***3096.7***	***1243.5***	***1868.2***	***3111.7***
0.4	0	0.4	0.4	0	0.4	*2.0*	*5.0*	*7.0*	*2.0*	*5.0*	*7.0*
28.0	46.8	74.8	40.0	48.0	88.0	*60.0*	*86.0*	*146.0*	*60.0*	*106.0*	*166.0*
68.0	50.0	118.0	70.0	51.0	121.0	*92.0*	*87.0*	*179.0*	*97.0*	*87.0*	*184.0*
69.0	87.0	156.0	77.0	92.5	169.5	*89.0*	*109.0*	*198.0*	*91.0*	*109.0*	*200.0*
9.5	14.8	24.3	9.7	17.5	27.2	*12.0*	*23.0*	*35.0*	*12.0*	*23.0*	*35.0*
93.4	77.5	170.9	96.1	78.5	174.6	*122.0*	*84.0*	*206.0*	*126.2*	*84.0*	*210.2*
53.0	148.0	201.0	60.0	151.0	211.0	*78.0*	*174.0*	*252.0*	*78.0*	*174.0*	*252.0*
388.8	314.0	702.8	392.8	354.0	746.8	*476.0*	*472.0*	*948.0*	*476.0*	*472.0*	*948.0*
45.0	77.0	122.0	47.0	80.0	127.0	*72.0*	*100.0*	*172.0*	*72.0*	*111.0*	*183.0*
755.1	**815.1**	**1570.2**	**793.0**	**872.5**	**1665.5**	***1003.0***	***1140.0***	***2143.0***	***1014.2***	***1171.0***	***2185.2***
1742.3	**2378.7**	**4121.0**	**1767.7**	**2460.5**	**4228.2**	***2237.5***	***3002.2***	***5239.7***	***2257.7***	***3039.2***	***5296.9***

TABLE 2:
WORLDWIDE NONCELLULOSIC FIBER PRODUCTION & PRODUCING CAPACITY BY COUNTRY EXCEPT OLEFIN *(CONTINUED)*

THOUSAND METRIC TONS

COUNTRY	ACTUAL PRODUCTION								
	1982			1983			1984		
	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL
U.S.A.	1121.4	1480.6	2602.0	1293.5	1715.0	3008.5	1259.8	1677.1	2936.9
OTHER AMERICAS									
ARGENTINA	18.1	11.9	30.0	24.2	16.0	40.2	25.5	21.4	46.9
BOLIVIA	1.0	0	1.0	2.0	0	2.0	0	0	0
BRAZIL	116.0	82.1	198.1	105.7	79.6	185.3	118.2	97.6	215.8
CANADA	52.0	45.0	97.0	59.3	53.0	112.3	69.6	59.0	128.6
CHILE	4.6	0.8	5.4	2.6	1.0	3.6	2.8	1.1	3.9
COLOMBIA	31.0	8.8	39.8	31.3	8.9	40.2	38.6	10.7	49.3
COSTA RICA	3.3	0	3.3	3.5	0	3.5	3.5	0	3.5
ECUADOR	5.3	0	5.3	4.6	0	4.6	4.8	0	4.8
MEXICO	117.1	115.4	232.5	126.3	142.9	269.2	147.4	151.4	298.8
PERU	11.2	29.4	40.6	12.5	31.0	43.5	13.0	34.1	47.1
URUGUAY	0.9	2.7	3.6	1.6	3.7	5.3	1.6	3.4	5.0
VENEZUELA	8.2	3.6	11.8	9.7	4.0	13.7	10.2	5.5	15.7
TOTAL OTHER AMERICAS	368.7	299.7	668.4	383.3	340.1	723.4	435.2	384.2	819.4
JAPAN	593.8	708.2	1302.0	597.3	720.9	1318.2	634.0	735.3	1369.3
CHINA, PRC	61.0	323.0	384.0	66.0	343.4	409.4	103.1	460.3	563.4
OTHER ASIA									
BANGLADESH	0.2	0	0.2	0.2	0	0.2	0.3	0	0.3
INDIA	62.0	44.2	106.2	87.2	40.8	128.0	106.3	56.0	162.3
INDONESIA	67.2	58.0	125.2	66.4	61.8	128.2	71.5	73.3	144.8
KOREA, REP. OF	301.4	311.1	612.5	336.5	327.6	664.1	369.6	376.9	746.5
MALAYSIA	0	32.0	32.0	0	35.0	35.0	0	35.5	35.5
PAKISTAN	5.1	12.0	17.1	8.1	18.6	26.7	12.0	21.7	33.7
PHILIPPINES	29.0	15.0	44.0	24.5	16.0	40.5	20.5	16.0	36.5
SRI LANKA	1.0	0	1.0	1.0	0	1.0	1.0	0	1.0
TAIWAN	280.8	350.1	630.9	323.4	414.0	737.4	417.9	448.0	865.9
THAILAND	37.1	48.0	85.1	40.0	50.0	90.0	37.0	52.4	89.4
TOTAL OTHER ASIA	783.8	870.4	1654.2	887.3	963.8	1851.1	1036.1	1079.8	2115.9
MIDDLE EAST, AFRICA & OCEANIA									
AUSTRALIA/N.Z.	14.5	0.5	15.0	14.5	1.0	15.5	13.0	1.0	14.0
EGYPT	3.3	17.6	20.9	3.5	20.6	24.1	5.5	25.6	31.1
IRAN	11.5	20.0	31.5	15.0	27.0	42.0	13.5	24.0	37.5
ISRAEL	9.0	7.0	16.0	8.7	7.0	15.7	9.5	7.0	16.5
KENYA	1.8	0	1.8	3.8	0	3.8	4.5	1.0	5.5
NIGERIA	1.2	1.1	2.3	2.5	2.5	5.0	3.0	3.0	6.0
SOUTH AFRICA	35.0	24.0	59.0	38.0	23.0	61.0	46.5	29.7	76.2
TANZANIA	1.0	0	1.0	3.0	0	3.0	3.0	0	3.0
TOTAL M.E., A. & O.	77.3	70.2	147.5	89.0	81.1	170.1	98.5	91.3	189.8
TOTAL WORLD	4479.7	5665.6	10145.3	4851.3	6264.2	11115.5	5210.4	6638.3	11848.7

ACTUAL PRODUCTION						PRODUCING CAPACITY					
1985			1986			3/1987			12/1988		
Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL
1286.3	1577.9	2864.2	1260.2	1658.6	2918.8	1473.3	1905.1	3378.4	1492.8	1921.0	3413.8
27.1	16.8	43.9	30.7	24.4	55.1	67.3	38.0	105.3	67.3	38.0	105.3
0	0	0	0	0	0	5.0	0	5.0	5.0	0	5.0
121.7	95.8	217.5	137.3	102.2	239.5	168.4	123.8	292.2	168.4	127.2	295.6
75.1	54.4	129.5	75.3	59.4	134.7	120.4	77.0	197.4	120.4	77.0	197.4
3.3	2.0	5.3	3.7	2.3	6.0	10.7	8.0	18.7	10.7	8.0	18.7
38.3	12.0	50.3	38.7	13.0	51.7	72.0	16.0	88.0	75.0	16.0	91.0
3.5	0	3.5	4.2	0	4.2	8.0	0	8.0	8.0	0	8.0
4.9	0	4.9	5.0	0	5.0	9.0	7.0	16.0	11.0	7.0	18.0
152.2	150.0	302.2	153.2	147.8	301.0	185.2	214.0	399.2	185.2	214.0	399.2
13.3	33.0	46.3	13.5	34.1	47.6	19.0	43.0	62.0	20.0	43.0	63.0
2.1	4.0	6.1	2.2	4.4	6.6	3.0	5.5	8.5	5.0	5.5	10.5
10.9	6.0	16.9	11.6	6.5	18.1	23.0	11.5	34.5	23.0	11.5	34.5
452.4	374.0	826.4	475.4	394.1	869.5	691.0	543.8	1234.8	699.0	547.2	1246.2
645.4	757.3	1402.7	608.2	752.8	1361.0	814.1	913.0	1727.1	814.1	913.0	1727.1
152.9	597.1	750.0	160.0	671.0	831.0	211.0	850.0	1061.0	211.0	850.0	1061.0
0.4	0	0.4	0.4	0	0.4	1.0	18.0	19.0	1.0	18.0	19.0
127.5	66.2	193.7	138.0	76.8	214.8	242.0	248.0	490.0	312.0	276.0	588.0
76.9	70.3	147.2	81.7	85.0	166.7	148.0	147.0	295.0	158.0	169.0	327.0
408.7	402.9	811.6	436.1	425.9	862.0	470.4	448.5	918.9	485.4	448.5	933.9
0	38.8	38.8	0	39.0	39.0	0	42.0	42.0	0	42.0	42.0
15.6	23.0	38.6	18.2	24.4	42.6	57.0	42.0	99.0	86.0	63.0	149.0
22.0	16.5	38.5	21.0	15.0	36.0	38.0	23.0	61.0	39.0	23.0	62.0
1.2	0	1.2	1.3	0	1.3	3.0	0	3.0	3.0	0	3.0
509.5	514.1	1023.6	605.6	626.5	1232.1	815.2	741.6	1556.8	903.0	813.5	1716.5
37.1	55.0	92.1	40.0	57.0	97.0	74.2	72.0	146.2	75.6	85.0	160.6
1198.9	1186.8	2385.7	1342.3	1349.6	2691.9	1848.8	1782.1	3630.9	2063.0	1938.0	4001.0
13.5	1.0	14.5	14.0	1.0	15.0	25.5	1.5	27.0	25.5	1.5	27.0
5.6	27.6	33.2	5.8	29.6	35.4	14.6	51.0	65.6	14.6	53.0	67.6
13.5	31.0	44.5	13.5	31.0	44.5	43.5	39.0	82.5	43.5	45.0	88.5
10.5	7.3	17.8	10.9	7.3	18.2	18.0	7.9	25.9	18.0	7.9	25.9
5.1	1.0	6.1	5.1	1.0	6.1	17.0	5.4	22.4	17.0	5.4	22.4
3.2	3.0	6.2	3.2	3.1	6.3	6.0	5.0	11.0	8.0	5.0	13.0
51.0	31.8	82.8	52.3	32.0	84.3	68.0	32.0	100.0	68.0	34.0	102.0
3.0	0	3.0	3.0	0	3.0	7.0	0	7.0	7.0	0	7.0
105.4	102.7	208.1	107.8	105.0	212.8	199.6	141.8	341.4	201.6	151.8	353.4
5583.6	6974.5	12558.1	5721.6	7391.6	13113.2	7475.3	9138.0	16613.3	7739.2	9360.2	17099.4

TABLE 3:
WORLDWIDE CELLULOSIC FIBER PRODUCTION & PRODUCING CAPACITY BY COUNTRY

THOUSAND METRIC TONS

COUNTRY	ACTUAL PRODUCTION								
	1982			1983			1984		
	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL
WESTERN EUROPE [a]									
AUSTRIA	13.8	100.8	114.6	11.4	109.7	121.1	14.8	109.0	123.8
BELGIUM/NETHERLANDS	37.1	8.9	46.0	41.1	6.1	47.2	41.1	0	41.1
FINLAND	0	53.1	53.1	0	57.6	57.6	0	58.0	58.0
FRANCE	8.6	36.9	45.5	8.4	29.5	37.9	7.5	19.0	26.5
GERMANY, FED. REP.	61.5	50.0	111.5	59.0	55.0	114.0	61.0	55.0	116.0
GREECE	7.2	0	7.2	6.3	0	6.3	6.0	0	6.0
ITALY	31.6	14.2	45.8	29.3	0	29.3	30.6	0	30.6
NORWAY	0	20.0	20.0	0	0	0	0	0	0
PORTUGAL	0.9	0	0.9	0.9	0	0.9	1.0	0	1.0
SPAIN	11.3	31.8	43.1	10.5	21.5	32.0	7.2	26.1	33.3
SWEDEN	0	38.0	38.0	0	39.3	39.3	0	40.1	40.1
TURKEY	0.3	3.0	3.3	0.3	4.0	4.3	0.3	4.5	4.8
UNITED KINGDOM	24.0	89.2	113.2	25.0	115.2	140.2	21.0	106.2	127.2
TOTAL WESTERN EUROPE	**196.3**	**445.9**	**642.2**	**192.2**	**437.9**	**630.1**	**190.5**	**417.9**	**608.4**
EASTERN EUROPE									
BULGARIA	4.0	34.0	38.0	4.1	35.0	39.1	4.1	37.1	41.2
CZECHOSLOVAKIA	19.6	35.5	55.1	20.1	37.9	58.0	20.5	38.6	59.1
GERMANY, DEM. REP.	34.0	127.8	161.8	35.0	130.1	165.1	35.2	135.0	170.2
HUNGARY	0	7.6	7.6	0	6.4	6.4	0	7.0	7.0
POLAND	19.3	45.1	64.4	18.2	51.2	69.4	19.5	56.0	75.5
ROMANIA	8.2	50.0	58.2	8.5	51.0	59.5	8.5	51.0	59.5
USSR	294.4	340.5	634.9	300.0	345.0	645.0	307.0	345.0	652.0
YUGOSLAVIA	13.0	55.0	68.0	14.0	58.0	72.0	14.0	55.0	69.0
TOTAL EASTERN EUROPE	**392.5**	**695.5**	**1088.0**	**399.9**	**714.6**	**1114.5**	**408.8**	**724.7**	**1133.5**
TOTAL EUROPE	**588.8**	**1141.4**	**1730.2**	**592.1**	**1152.5**	**1744.6**	**599.3**	**1142.6**	**1741.9**

Y Yarn+monofilaments.

S Staple+tow+fiberfill.

a. Starting in 1986 country detail is no longer available due to disclosure.

These totals do not include data for the Indonesian pilot plant nor production of cellulosic fiber in North Korea.

Production and producing capacity by country, divided between rayon and acetate yarn, is given on pages 116 - 117.

Also note page 120 for data on production of cigarette tow.

ACTUAL PRODUCTION						PRODUCING CAPACITY					
1985			1986			3/1987			12/1988		
Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL
14.9	109.0	123.9			123.0			*129.0*			*130.0*
42.0	0	42.0			40.0			*45.2*			*45.2*
0	60.0	60.0			55.0			*65.0*			*65.0*
7.0	15.0	22.0			21.0			*25.0*			*25.0*
64.0	55.0	119.0	DETAIL NO LONGER AVAILABLE		121.0	DETAIL NO LONGER AVAILABLE		*131.0*	DETAIL NO LONGER AVAILABLE		*131.0*
7.0	0	7.0			7.9			*8.0*			*8.0*
30.2	0	30.2			30.0			*42.0*			*45.0*
0	0	0			0			*0*			*0*
1.0	0	1.0			0.7			*2.0*			*2.0*
7.5	30.0	37.5			36.0			*41.1*			*41.1*
0	33.0	33.0			22.1			*45.0*			*47.0*
1.0	7.0	8.0			8.0			*9.2*			*9.2*
19.0	60.2	79.2			58.0			*75.5*			*75.5*
193.6	**369.2**	**562.8**	**189.6**	**333.1**	**522.7**	***224.5***	***393.5***	***618.0***	***227.5***	***396.5***	***624.0***
4.1	37.6	41.7	4.2	38.0	42.2	*5.0*	*42.0*	*47.0*	*5.0*	*42.0*	*47.0*
20.9	39.6	60.5	21.1	40.5	61.6	*25.0*	*61.0*	*86.0*	*25.0*	*61.0*	*86.0*
35.4	132.4	167.8	35.6	91.5	127.1	*39.0*	*166.0*	*205.0*	*39.0*	*166.0*	*205.0*
0	7.0	7.0	0	7.2	7.2	*0*	*10.0*	*10.0*	*0*	*10.0*	*10.0*
20.5	60.0	80.5	20.7	63.0	83.7	*32.0*	*71.5*	*103.5*	*32.0*	*71.5*	*103.5*
8.8	53.0	61.8	9.0	55.0	64.0	*10.0*	*160.0*	*170.0*	*10.0*	*160.0*	*170.0*
312.0	350.0	662.0	316.0	350.0	666.0	*340.0*	*353.0*	*693.0*	*340.0*	*353.0*	*693.0*
14.9	55.0	69.9	15.1	56.0	71.1	*17.0*	*60.0*	*77.0*	*17.0*	*60.0*	*77.0*
416.6	**734.6**	**1151.2**	**421.7**	**701.2**	**1122.9**	***468.0***	***923.5***	***1391.5***	***468.0***	***923.5***	***1391.5***
610.2	**1103.8**	**1714.0**	**611.3**	**1034.3**	**1645.6**	***692.5***	***1317.0***	***2009.5***	***695.5***	***1320.0***	***2015.5***

TABLE 3:
WORLDWIDE CELLULOSIC FIBER PRODUCTION & PRODUCING CAPACITY BY COUNTRY *(CONTINUED)*

THOUSAND METRIC TONS

COUNTRY	ACTUAL PRODUCTION								
	1982			1983			1984		
	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL
U.S.A.	**103.6**	**161.0**	**264.6**	**119.7**	**170.6**	**290.3**	**108.4**	**176.4**	**284.8**
OTHER AMERICAS									
ARGENTINA	1.6	0	1.6	1.7	0	1.7	1.8	1.5	3.3
BRAZIL	20.8	24.2	45.0	18.4	22.0	40.4	17.7	29.0	46.7
CANADA	9.5	28.0	37.5	10.0	30.0	40.0	10.0	33.9	43.9
CHILE	1.0	3.2	4.2	1.0	3.2	4.2	1.2	3.7	4.9
COLOMBIA	1.8	0	1.8	1.8	0	1.8	1.8	0	1.8
CUBA	2.1	3.6	5.7	2.0	3.5	5.5	2.0	3.5	5.5
MEXICO	14.1	5.4	19.5	10.8	5.0	15.8	11.6	4.0	15.6
PERU	1.0	0	1.0	1.0	0	1.0	1.7	0	1.7
URUGUAY	0.6	0	0.6	1.0	0	1.0	1.0	0	1.0
VENEZUELA	1.2	0	1.2	1.5	0	1.5	1.9	0	1.9
TOTAL OTHER AMERICAS	**53.7**	**64.4**	**118.1**	**49.2**	**63.7**	**112.9**	**50.7**	**75.6**	**126.3**
JAPAN	**120.5**	**258.8**	**379.3**	**116.8**	**271.0**	**387.8**	**110.8**	**266.6**	**377.4**
CHINA, PRC	**80.0**	**105.0**	**185.0**	**85.0**	**100.0**	**185.0**	**87.0**	**108.0**	**195.0**
OTHER ASIA									
BANGLADESH	2.5	0	2.5	2.5	1.0	3.5	2.5	1.0	3.5
INDIA	48.6	52.8	101.4	46.2	69.9	116.1	41.7	100.1	141.8
INDONESIA	0	18.1	18.1	0	34.1	34.1	0	41.3	41.3
KOREA, REP. OF	9.9	5.8	15.7	12.9	0	12.9	12.8	0	12.8
PAKISTAN	2.5	0	2.5	2.7	0	2.7	3.1	0	3.1
TAIWAN	3.3	89.5	92.8	3.0	98.5	101.5	2.5	125.5	128.0
THAILAND	0	15.5	15.5	0	17.5	17.5	0	18.0	18.0
TOTAL OTHER ASIA	**66.8**	**181.7**	**248.5**	**67.3**	**221.0**	**288.3**	**62.6**	**285.9**	**348.5**
MIDDLE EAST, AFRICA & OCEANIA									
EGYPT	7.0	4.5	11.5	7.0	4.6	11.6	7.0	4.6	11.6
IRAQ	3.0	5.5	8.5	3.0	5.5	8.5	3.0	5.5	8.5
TOTAL M.E., A & O	**10.0**	**10.0**	**20.0**	**10.0**	**10.1**	**20.1**	**10.0**	**10.1**	**20.1**
TOTAL WORLD	**1023.4**	**1922.3**	**2945.7**	**1040.1**	**1988.9**	**3029.0**	**1028.8**	**2065.2**	**3094.0**

ACTUAL PRODUCTION						PRODUCING CAPACITY					
1985			1986			3/1987			12/1988		
Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL
93.0	**160.1**	**253.1**	**97.5**	**183.3**	**280.8**	***110.7***	***210.9***	***321.6***	***110.7***	***210.9***	***321.6***
1.5	1.5	3.0	2.0	3.6	5.6	*9.0*	*10.0*	*19.0*	*9.0*	*10.0*	*19.0*
20.1	26.5	46.6	16.8	33.6	50.4	*22.2*	*34.2*	*56.4*	*22.2*	*34.2*	*56.4*
8.0	26.9	34.9	8.8	29.1	37.9	*14.5*	*38.0*	*52.5*	*14.5*	*38.0*	*52.5*
1.3	3.8	5.1	1.3	3.9	5.2	*1.5*	*5.4*	*6.9*	*1.5*	*5.4*	*6.9*
1.8	0	1.8	1.8	0	1.8	*3.5*	*0*	*3.5*	*3.5*	*0*	*3.5*
2.1	3.5	5.6	2.5	3.5	6.0	*3.0*	*5.0*	*8.0*	*3.0*	*5.0*	*8.0*
12.2	0	12.2	12.3	0	12.3	*13.7*	*0*	*13.7*	*13.7*	*0*	*13.7*
1.7	0	1.7	1.7	0	1.7	*1.7*	*0*	*1.7*	*1.7*	*0*	*1.7*
1.0	0	1.0	1.0	0	1.0	*1.9*	*0*	*1.9*	*1.9*	*0*	*1.9*
2.1	0	2.1	2.2	0	2.2	*2.4*	*0*	*2.4*	*2.4*	*0*	*2.4*
51.8	**62.2**	**114.0**	**50.4**	**73.7**	**124.1**	***73.4***	***92.6***	***166.0***	***73.4***	***92.6***	***166.0***
104.6	**283.3**	**387.9**	**106.7**	**254.2**	**360.9**	***136.4***	***314.4***	***450.8***	***136.4***	***314.4***	***450.8***
87.0	**112.0**	**199.0**	**87.0**	**130.0**	**217.0**	***100.0***	***150.0***	***250.0***	***100.0***	***150.0***	***250.0***
2.7	1.0	3.7	2.7	1.1	3.8	*6.5*	*5.0*	*11.5*	*6.5*	*5.0*	*11.5*
46.9	95.0	141.9	49.8	86.3	136.1	*70.0*	*128.8*	*198.8*	*70.0*	*128.8*	*198.8*
0	40.0	40.0	0	39.3	39.3	*0*	*47.0*	*47.0*	*0*	*47.0*	*47.0*
13.8	0	13.8	13.9	0	13.9	*14.0*	*28.1*	*42.1*	*15.9*	*28.1*	*44.0*
3.2	0	3.2	3.2	0	3.2	*3.3*	*0*	*3.3*	*3.3*	*0*	*3.3*
2.5	119.5	122.0	2.8	117.1	119.9	*4.0*	*129.6*	*133.6*	*4.0*	*129.6*	*133.6*
0	19.0	19.0	0	19.0	19.0	*0*	*20.8*	*20.8*	*0*	*20.8*	*20.8*
69.1	**274.5**	**343.6**	**72.4**	**262.8**	**335.2**	***97.8***	***359.3***	***457.1***	***99.7***	***359.3***	***459.0***
7.0	4.7	11.7	7.0	4.7	11.7	*7.0*	*5.4*	*12.4*	*7.0*	*5.4*	*12.4*
3.0	5.5	8.5	3.0	5.5	8.5	*3.5*	*6.5*	*10.0*	*3.5*	*6.5*	*10.0*
10.0	**10.2**	**20.2**	**10.0**	**10.2**	**20.2**	***10.5***	***11.9***	***22.4***	***10.5***	***11.9***	***22.4***
1025.7	**2006.1**	**3031.8**	**1035.3**	**1948.5**	**2983.8**	***1221.3***	***2456.1***	***3677.4***	***1226.2***	***2459.1***	***3685.3***

TABLE 4:
WORLDWIDE RAYON VS. ACETATE FILAMENT YARN PRODUCTION & PRODUCING CAPACITY BY COUNTRY
THOUSAND METRIC TONS

COUNTRY	ACTUAL PRODUCTION								
	1982			1983			1984		
	H	R&C	A	H	R&C	A	H	R&C	A
WESTERN EUROPE									
AUSTRIA	9	5	0	8	4	0	10	5	0
BELGIUM/NETHERLANDS	15	16	6	18	17	7	18	16	7
FRANCE	0	9	0	0	8	0	0	7	0
GERMANY, FED. REP. OF [a]	40	21	+	39	20	0	40	21	0
ITALY [a]	9	3	19	9	2	18	11	2	18
SPAIN	4	4	3	3	4	3	+	4	3
UNITED KINGDOM	0	0	24	0	0	25	0	0	21
OTHER [b]	0	9	0	0	8	0	0	7	0
TOTAL WESTERN EUROPE	**77**	**67**	**52**	**77**	**63**	**53**	**79**	**62**	**49**
EASTERN EUROPE									
BULGARIA	0	4	0	0	4	0	0	4	0
CZECHOSLOVAKIA	8	12	0	8	12	0	8	12	0
GERMANY, DEM. REP.	13	21	0	14	22	0	14	22	0
POLAND	4	15	0	4	14	0	5	15	0
ROMANIA	5	3	0	5	3	0	5	3	0
USSR [a]	160	80	54	162	83	55	165	85	57
YUGOSLAVIA	6	7	0	7	7	0	7	7	0
TOTAL EASTERN EUROPE	**196**	**142**	**54**	**200**	**145**	**55**	**204**	**148**	**57**
U.S.A. [a]	**9**	**6**	**88**	**11**	**6**	**103**	**13**	**6**	**90**
OTHER AMERICAS									
ARGENTINA	0	0	2	0	0	2	0	0	2
BRAZIL	4	15	2	3	14	1	4	12	2
CANADA	0	0	10	0	0	10	0	0	10
CHILE	0	1	0	0	1	0	0	1	0
COLOMBIA	0	0	2	0	0	2	0	0	2
CUBA	2	+	0	2	+	0	2	0	0
MEXICO	3	5	6	3	2	6	2	3	6
PERU	0	0	1	0	0	1	0	0	2
URUGUAY	0	0	1	0	0	1	0	0	1
VENEZUELA	0	0	1	0	0	1	0	0	2
TOTAL OTHER AMERICAS	**9**	**21**	**25**	**8**	**17**	**24**	**8**	**16**	**27**
JAPAN [a]	**4**	**83**	**34**	**3**	**82**	**32**	**2**	**78**	**31**
CHINA, PRC	**0**	**80**	**0**	**0**	**85**	**0**	**0**	**87**	**0**
OTHER ASIA									
BANGLADESH	0	3	0	0	3	0	0	3	0
INDIA	11	36	2	10	35	1	8	33	1
KOREA, REP. OF	0	8	2	0	11	2	0	11	2
PAKISTAN	0	0	2	0	0	3	0	0	3
TAIWAN	0	3	0	0	3	0	0	3	0
TOTAL OTHER ASIA	**11**	**50**	**6**	**10**	**52**	**6**	**8**	**50**	**6**
OTHER M.E., A & O [c]	**0**	**9**	**0**	**0**	**8**	**0**	**0**	**8**	**0**
WORLD TOTAL	**306**	**458**	**259**	**309**	**458**	**273**	**314**	**455**	**260**

H High tenacity (tire & industrial type) viscose rayon yarn.
R Regular + intermediate tenacity viscose rayon yarn.
C Cuprammonium rayon yarn.
A Acetate + triacetate yarn.
a. Produces both regular + intermediate rayon yarn and cuprammonium rayon yarn.
b. Comprises Finland, Greece, Portugal, Switzerland and Turkey.
c. Comprises Egypt and Iraq.

ACTUAL PRODUCTION						PRODUCING CAPACITY					
1985			1986			3/1987			12/1988		
H	R&C	A	H	R&C	A	H	R&C	A	H	R&C	A
10	5	0									
18	17	7									
0	7	0									
40	24	0									
10	2	18	DETAIL NO LONGER AVAILABLE			DETAIL NO LONGER AVAILABLE			DETAIL NO LONGER AVAILABLE		
+	4	3									
0	0	19									
0	8	0									
78	**67**	**47**	**71**	**69**	**50**	***85***	***84***	***55***	***88***	***84***	***55***
0	4	0	0	4	0	*0*	*5*	*0*	*0*	*5*	*0*
8	13	0	8	13	0	*11*	*14*	*0*	*11*	*14*	*0*
14	22	0	14	22	0	*15*	*24*	*0*	*15*	*24*	*0*
5	16	0	5	16	0	*9*	*23*	*0*	*9*	*23*	*0*
5	4	0	5	4	0	*6*	*4*	*0*	*6*	*4*	*0*
166	87	59	167	89	60	*170*	*100*	*70*	*170*	*100*	*70*
8	7	0	8	8	0	*8*	*9*	*0*	*8*	*9*	*0*
206	**153**	**59**	**207**	**156**	**60**	***219***	***179***	***70***	***219***	***179***	***70***
9	**6**	**78**	**7**	**6**	**84**	***23***	***6***	***82***	***23***	***6***	***82***
0	0	2	0	0	2	*0*	*6*	*3*	*0*	*6*	*3*
4	15	1	1	15	0	*5*	*16*	*2*	*5*	*16*	*2*
0	0	8	0	0	9	*0*	*0*	*14*	*0*	*0*	*14*
0	1	0	0	1	0	*0*	*1*	*0*	*0*	*1*	*0*
0	0	2	0	0	2	*0*	*0*	*3*	*0*	*0*	*3*
2	0	0	3	0	0	*3*	*0*	*0*	*3*	*0*	*0*
3	3	6	3	3	6	*3*	*4*	*7*	*3*	*4*	*7*
0	0	2	0	0	2	*0*	*0*	*2*	*0*	*0*	*2*
0	0	1	0	0	1	*0*	*0*	*2*	*0*	*0*	*2*
0	0	2	0	0	2	*0*	*0*	*2*	*0*	*0*	*2*
9	**19**	**24**	**7**	**19**	**24**	***11***	***27***	***35***	***11***	***27***	***35***
2	**74**	**28**	**2**	**77**	**27**	***10***	***92***	***35***	***10***	***92***	***35***
0	**87**	**0**	**0**	**87**	**0**	***0***	***100***	***0***	***0***	***100***	***0***
0	3	0	0	3	0	*0*	*6*	*0*	*0*	*6*	*0*
7	40	+	6	44	+	*21*	*46*	*3*	*21*	*46*	*3*
0	12	2	0	12	2	*0*	*12*	*2*	*0*	*14*	*2*
0	0	3	0	0	3	*0*	*0*	*3*	*0*	*0*	*3*
0	3	0	0	3	0	*0*	*4*	*0*	*0*	*4*	*0*
7	**58**	**5**	**6**	**62**	**5**	***21***	***68***	***8***	***21***	***70***	***8***
0	**10**	**0**	**0**	**10**	**0**	***0***	***11***	***0***	***0***	***11***	***0***
311	**474**	**241**	**300**	**486**	**250**	***369***	***567***	***285***	***372***	***569***	***285***

TABLE 5:
WORLDWIDE NONCELLULOSIC FIBER PRODUCTION & PRODUCING CAPACITY BY FIBER EXCEPT OLEFIN
THOUSAND METRIC TONS

FIBER & AREA	ACTUAL PRODUCTION 1982 Y	1982 S	1982 TOTAL	1983 Y	1983 S	1983 TOTAL	1984 Y	1984 S	1984 TOTAL
ACRYLIC+MODACRYLIC									
WEST EUROPE	0	725	725	0	834	834	1	865	866
EAST EUROPE	0	213	213	0	222	222	0	232	232
U.S.A.	0	283	283	0	304	304	0	304	304
OTHER AMERICAS	0	121	121	0	130	130	0	140	140
JAPAN	3	344	347	2	355	357	2	367	369
CHINA, PRC	0	66	66	0	68	68	0	69	69
OTHER ASIA	0	286	286	0	293	293	0	313	313
MIDDLE EAST, AFRICA & OCEANIA	0	17	17	0	19	19	0	16	16
TOTAL	**3**	**2055**	**2058**	**2**	**2225**	**2227**	**3**	**2306**	**2309**
NYLON+ARAMID [a]									
WEST EUROPE	465	107	572	486	117	603	496	133	629
EAST EUROPE	457	82	539	485	87	572	512	93	605
U.S.A.	563	310	873	677	420	1097	715	379	1094
OTHER AMERICAS	182	21	203	180	22	202	209	22	231
JAPAN	264	19	283	271	18	289	288	19	307
CHINA, PRC	40	0	40	44	0	44	57	1	58
OTHER ASIA	296	3	299	307	3	310	343	3	346
MIDDLE EAST, AFRICA & OCEANIA	43	1	44	47	2	49	52	1	53
TOTAL	**2310**	**543**	**2853**	**2497**	**669**	**3166**	**2672**	**651**	**3323**
POLYESTER									
WEST EUROPE	393	428	821	387	454	841	435	487	922
EAST EUROPE	152	347	499	171	373	544	194	390	584
U.S.A.	550	887	1437	617	991	1608	544	994	1538
OTHER AMERICAS	186	158	344	202	189	391	225	222	447
JAPAN	314	314	628	310	320	630	327	320	647
CHINA, PRC	14	207	221	15	220	235	39	320	359
OTHER ASIA	488	582	1070	580	669	1249	693	764	1457
MIDDLE EAST, AFRICA & OCEANIA	34	52	86	42	60	102	46	74	120
TOTAL	**2131**	**2975**	**5106**	**2324**	**3276**	**5600**	**2503**	**3571**	**6074**
OTHER FIBERS EXCEPT OLEFIN [b]									
WEST EUROPE	6	9	15	6	9	15	6	9	15
EAST EUROPE	1	3	4	+	3	3	1	2	3
U.S.A.	8	+	8	+	+	+	+	+	+
OTHER AMERICAS	1	0	1	1	0	1	1	0	1
JAPAN	13	31	44	14	28	42	17	29	46
CHINA, PRC	7	50	57	7	55	62	7	70	77
OTHER ASIA	+	0	0	+	0	0	+	0	0
MIDDLE EAST, AFRICA & OCEANIA	0	0	0	0	0	0	0	0	0
TOTAL	**36**	**93**	**129**	**28**	**95**	**123**	**32**	**110**	**142**
TOTAL FIBERS ABOVE									
WEST EUROPE	864	1269	2133	879	1414	2293	938	1494	2432
EAST EUROPE	610	645	1255	656	685	1341	707	717	1424
U.S.A.	1121	1480	2601	1294	1715	3009	1259	1677	2936
OTHER AMERICAS	369	300	669	383	341	724	435	384	819
JAPAN	594	708	1302	597	721	1318	634	735	1369
CHINA, PRC	61	323	384	66	343	409	103	460	563
OTHER ASIA	784	871	1655	887	965	1852	1036	1080	2116
MIDDLE EAST, AFRICA & OCEANIA	77	70	147	89	81	170	98	91	189
WORLD TOTAL	**4480**	**5666**	**10146**	**4851**	**6265**	**11116**	**5210**	**6638**	**11848**

Y Yarn+monofilaments.
S Staple+tow+fiberfill.
+ Nominal quantities.
a. U.S.A. nylon producing capacity data do not include aramid.
b. Other fibers are alginate, azlon, spandex or elastomer, saran, TFE-fluorocarbon, vinal and vinyon. U.S.A. production data do not include spandex in 1983 through 1986.
c. Based on 1986 production and an average March 1986 and March 1987 producing capacity. Refer to June 1986 ***Organon*** for March 1986 producing capacity.

The regional totals here are the same as those on pages 108-111.

ACTUAL PRODUCTION						PRODUCING CAPACITY						% UTILIZATION [C]	
1985			1986			3/1987			12/1988				
Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL	Y	S	TOTAL	Y	S
1	925	926	1	934	935	1	1056	1057	1	1056	1057	100.0	89.9
0	261	261	0	289	289	0	362	362	0	382	382	0	82.1
0	286	286	0	279	279	0	293	293	0	298	298	0	97.0
0	135	135	0	142	142	0	200	200	0	203	203	0	71.4
2	380	382	3	394	397	6	425	431	6	425	431	50.0	92.7
0	73	73	0	75	75	0	120	120	0	120	120	0	63.8
0	321	321	0	330	330	0	425	425	0	437	437	0	63.9
0	22	22	0	23	23	0	28	28	0	28	28	0	82.1
3	2403	2406	4	2466	2470	7	2909	2916	7	2949	2956	57.5	83.7
526	144	670	523	144	667	658	193	851	660	193	853	80.5	75.1
537	95	632	546	100	646	648	113	761	651	113	764	84.9	90.1
687	375	1062	728	412	1140	840	500	1340	866	520	1386	87.6	84.7
224	16	240	233	17	250	352	43	395	361	43	404	66.3	40.0
291	24	315	260	19	279	330	29	359	330	29	359	79.1	65.5
70	1	71	70	1	71	90	5	95	90	5	95	77.8	20.0
366	4	370	385	4	389	544	6	550	564	6	570	69.5	48.8
55	2	57	56	2	58	110	3	113	110	3	113	52.6	86.9
2756	661	3417	2801	699	3500	3572	892	4464	3632	912	4544	79.0	79.2
454	486	940	446	501	947	568	601	1169	575	607	1182	78.7	83.4
217	455	672	246	480	726	354	657	1011	362	668	1030	72.8	74.5
599	917	1516	532	967	1499	619	1112	1731	613	1103	1716	81.1	80.8
228	223	451	241	235	476	338	301	639	337	301	638	69.5	79.8
329	323	652	322	310	632	437	356	793	437	356	793	73.5	87.1
73	443	516	80	525	605	106	650	756	106	650	756	83.3	87.5
833	862	1695	957	1016	1973	1304	1351	2655	1498	1495	2993	73.1	73.3
50	79	129	52	80	132	90	111	201	92	121	213	58.6	60.1
2783	3788	6571	2876	4114	6990	3816	5139	8955	4020	5301	9321	75.1	79.8
6	9	15	5	9	14	8	12	20	7	12	19	62.5	75.0
1	4	5	1	4	5	1	8	9	1	8	9	100.0	47.1
+	+	+	+	+	+	14	0	14	14	0	14	0	0
1	0	1	1	0	1	1	0	1	1	0	1	50.0	0
23	30	53	23	30	53	41	103	144	41	103	144	63.0	29.1
10	80	90	10	70	80	15	75	90	15	75	90	66.7	93.3
+	0	0	+	0	0	1	0	1	1	0	1	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0
41	123	164	40	113	153	81	198	279	80	198	278	51.4	58.1
987	1564	2551	975	1588	2563	1235	1862	3097	1243	1868	3111	79.9	85.7
755	815	1570	793	873	1666	1003	1140	2143	1014	1171	2185	80.4	78.2
1286	1578	2864	1260	1658	2918	1473	1905	3378	1493	1921	3414	81.0	81.2
453	374	827	475	394	869	691	544	1235	699	547	1246	68.1	73.5
645	757	1402	608	753	1361	814	913	1727	814	913	1727	75.2	82.5
153	597	750	160	671	831	211	850	1061	211	850	1061	79.6	84.1
1199	1187	2386	1342	1350	2692	1849	1782	3631	2063	1938	4001	72.0	71.2
105	103	208	108	105	213	200	142	342	202	152	354	55.2	69.2
5583	6975	12558	5721	7392	13113	7476	9138	16614	7739	9360	17099	74.7	79.4

TABLE 6:
WORLDWIDE GLASS FIBER PRODUCTION & PRODUCING CAPACITY
THOUSAND METRIC TONS

COUNTRY	PRODUCTION 1982	1983	1984	1985	1986	CAPACITY 3/87	12/88
WEST EUROPE }	250	290	300	320	364	*385*	*385*
EAST EUROPE[a] }						*90*	*90*
U.S.A.	408	530	632	610	630	*792*	*822*
OTHER AMERICIAS	35	37	39	32	35	*45*	*45*
JAPAN	198	206	249	273	240	*300*	*300*
MIDDLE EAST, AFRICA & OCEANIA[b]	12	14	14	28	30	*40*	*40*
TOTAL ABOVE	**903**	**1077**	**1234**	**1263**	**1299**	*1652*	*1682*
CHINA P.R.C.	30	30	40	50	50	*70*	*70*
U.S.S.R.	65	65	75	85	100	*150*	*200*

Glass fiber is defined on page 122 of this issue. The glass fiber producing capacity, is based on March 1987 and December 1988 annual projections.

a. The data for East Europe do not include estimates for the U.S.S.R.
b. The Other Asia, Africa & Oceania countries are Australia, India and South Africa.

TABLE 7:
ESTIMATED WORLDWIDE CIGARETTE TOW PRODUCTION
THOUSAND METRIC TONS

AREA	1982	1983	1984	1985	1986
EUROPE[a]	81	80	80	83	104
U.S.A. OTHER AMERICAS[b] }	216	211	187	210	216
ASIA[c]	42	43	47	44	42
WORLD TOTAL	**339**	**334**	**314**	**337**	**362**

a. Belgium,Germany, Fed. Rep., U.S.S.R. & United Kingdom.
b. Brazil, Canada, Colombia, Mexico & Venezuela.
c. Japan and Korea, Rep.of.

TABLE 8:
WORLDWIDE OLEFIN FIBER PRODUCTION
THOUSAND METRIC TONS

COUNTRY	1982	1983	1984	1985	1986
WEST EUROPE					
AUSTRIA	19	20	21	30	35
BENELUX	73	75	97	120	123
DENMARK	13	14	14	25	28
FINLAND	3	4	14	24	24
FRANCE	26	29	29	50	53
GREECE/CYPRUS	9	10	11	14	14
GERMANY, FED. REP.	55	61	81	113	117
IRELAND	8	9	9	9	9
ITALY	59	67	91	127	130
NORWAY	4	5	4	4	4
PORTUGAL	38	39	39	40	41
SPAIN	36	36	37	37	38
SWEDEN	3	4	4	6	7
SWITZERLAND	3	4	8	14	15
TURKEY	5	6	6	6	6
UNITED KINGDOM	76	80	80	90	95
TOTAL WEST EUROPE	**430**	**463**	**545**	**709**	**739**
EAST EUROPE					
CZECHOSLOVAKIA	11	12	12	12	12
HUNGARY	16	16	16	17	17
POLAND	12	15	16	16	17
U.S.S.R.	14	18	20	22	24
U.S.A.					
YARN+MONOFIL	134	168	175	192	213
STAPLE	63	86	113	137	152
FILM FIBER	131	149	154	233	263
OTHER AMERICAS					
ARGENTINA	11	12	12	13	13
BRAZIL	39	36	39	39	40
CANADA	28	32	30	32	33
CHILE	1	1	1	1	1
EL SALVADOR GUATEMALA HONDURAS }	2	3	3	3	3
MEXICO	23	26	26	26	27
NICARAGUA	1	1	1	1	1
PERU	6	6	6	6	7
URUGUAY	1	2	2	2	2
JAPAN					
YARN+MONOFIL	14	14	14	14	11
STAPLE	28	29	32	35	37
FILM FIBER	NA	NA	NA	NA	NA
OTHER ASIA					
KOREA, REP. OF	2	1	1	1	0
PHILIPPINES	3	3	3	3	3
TAIWAN	56	60	63	71	77
MIDDLE EAST, AFRICA & OCEANIA					
AUSTRALIA	19	21	22	23	25
SOUTH AFRICA	3	5	5	5	5
OTHER	+	1	1	1	1

The olefin data shown include the "official" country data published by a government, an association or other statistical agency as well as an estimate of the olefin fiber, mainly slit and split film fiber, believed to have been produced in the country. For example: although U.S. olefin production data include yarn, monofil, staple, film fiber, and spunbonded polypropylene, published italian and Japanese olefin data show the production of yarn+monofilaments and staple+tow but no data on production of film fiber, such as that used in sacks, fishing nets, and carpet backing. Estimates were made in the latter example.

Due to the inconsistencies in olefin production reporting, we have made no attempt to show a worldwide total.

TABLE 9:
NUMBER OF MAN-MADE FIBER PRODUCING PLANTS (EXCEPT OLEFIN)

COUNTRY & REGION	CELLULOSIC		NONCELLULOSIC				TOTAL	TEXTILE GLASS	GRAND TOTAL
	ACETATE[a]	RAYON	ACRYLIC[b]	NYLON[c]	POLY-ESTER	OTHER[d]			
WESTERN EUROPE									
AUSTRIA		3			1	2	3		6
BELGIUM/LUXEMBOURG	1	1		3	1		4	2	8
FINLAND		1		1			1	1	3
FRANCE		3	1	7	3	1	12	2	17
GERMANY, FED. REP.	1	3	3	11	11	4	29	3	36
GREECE		1	1	2	3		6		7
IRELAND			1	1	2		4		4
ITALY/MALTA	2	2	4	17	8	3	32	2	38
NETHERLANDS		1		2	1	1	4	1	6
NORWAY							0	1	1
PORTUGAL		2	1	1	1		3	1	6
SPAIN	1	2	2	7	5		14	1	18
SWEDEN		1		1			1	1	3
SWITZERLAND				4	3		7		7
TURKEY		1	2	3	8		13	1	15
UNITED KINGDOM	3	1	2	5	5	5	17	5	26
TOTAL WESTERN EUROPE	**8**	**22**	**17**	**65**	**52**	**16**	**150**	**21**	**201**
EASTERN EUROPE									
BULGARIA		1	1	1	1		3		4
CZECHOSLOVAKIA		6		3	2		5	2	13
GERMANY, DEM. REP.		8	2	3	2	1	8	1	17
HUNGARY		1	1	1			2		3
POLAND		5	1	1	2	2	6	2	13
ROMANIA		2	1	1	2		4		6
YUGOSLAVIA		2	1	2	5		8	1	11
TOTAL EASTERN EUROPE	**0**	**25**	**7**	**12**	**14**	**3**	**36**	**6**	**67**
U.S.A.	**4**	**4**	**5**	**33**	**35**	**7**	**80**	**17**	**105**
OTHER AMERICAS									
ARGENTINA	1	1	1	7	5	1	14	1	17
BOLIVA					1		1		1
BRAZIL	1	4	2	19	12	1	34	1	40
CANADA	1	1		3	2	1	6	1	9
CHILE		1		2	3		5		6
COLOMBIA				2	3		5		5
COSTA RICA					1		1		1
CUBA		1					0		1
ECUADOR					3		3		3
GUATEMALA				1			1		1
MEXICO	1	1	4	7	8	2	21	1	24
PERU	1		1	4	4		9		10
URUGUAY	1			3	2		5		6
VENEZUELA	1			2	3	1	6		7
TOTAL OTHER AMERICAS	**7**	**9**	**8**	**50**	**47**	**6**	**111**	**4**	**131**
JAPAN	**2**	**13**	**6**	**10**	**19**	**14**	**49**	**14**	**78**
OTHER ASIA									
BANGLADESH		2		1			1		3
INDIA	1	11	3	12	15		30		42
INDONESIA		2		5	9		14		16
KOREA, REP. OF	1	1	2	5	10	1	18		20
MALAYSIA			2		3		5		5
PAKISTAN	1			3	9		12		13
PHILIPPINES				2	2		4		4
SRI LANKA				1			1		1
TAIWAN		2	3	13	15		31		33
THAILAND		1		3	4		7		8
TOTAL OTHER ASIA	**3**	**19**	**10**	**45**	**67**	**1**	**123**	**0**	**145**
MIDDLE EAST, AFRICA & OCEANIA									
AUSTRALIA				3	2	1	6	1	7
EGYPT		2		1	2		3		5
IRAN			1	2	1		4		4
IRAQ		1					0		1
ISRAEL			1	1			2		2
KENYA				1	5		6		6
NIGERIA					1		1		1
SOUTH AFRICA				1	4		5		5
TANZANIA					1		1		1
TOTAL MIDDLE EAST, AFRICA & OCEANIA	**0**	**3**	**2**	**9**	**16**	**1**	**28**	**1**	**32**
WORLD TOTAL*	**24**	**95**	**55**	**224**	**250**	**48**	**577**	**63**	**759**

Planned facilities indicated by an asterick (*) in our listing of worldwide producers are not included in the above table.

* Data for China, PRC, North Korea & U.S.S.R. are not included here.

a. Acetate includes triacetate.

b. Acrylic includes modacrylic.

c. Nylon includes aramid.

d. Includes 1 azlon, 5 biconstituent, 1 cuprammonium, 4 fluorocarbon, 1 PBI, 1 polychlal, 2 polyesteramide, 6 saran, 19 spandex or elastomer, 4 vinal and 4 vinyon plants, for a total of 48 plants producing these miscellaneous fibers.

1987 WORLDWIDE DIRECTORY OF MAN-MADE FIBER PRODUCERS

NOTES & DEFINITIONS

This directory of producers lists each country separately and divides them into the following categories:

(1) Cellulosic plus Noncellulosic fibers
(2) Olefin fiber
(3) Textile glass fiber

The locality shown represents a plant site.

The generic fiber names used in this survey are those established by the U.S. Federal Trade Commission (FTC). The *italicized* words are trademarks. All other fiber names are generic and appear in regular type.

• Indicates a company producing olefin fiber as well as other man-made fiber(s). For example, Brasil Viscose S.A. produces olefin fiber in Brazil as well as nylon and rayon. The nylon and rayon entries for this company are in one section and the olefin entry is shown in the Olefin fiber section.

* Indicates a new plant, in the planning stage or under construction, or a new facility for producing a new product at an existing plant. Such facilities are not expected to be operable until 1988 or later.

Yarn means filament yarn.
Monofil means an extruded monofilament and may be either a round or rectangular (ribbon) cross-section. Monofilaments for bristles are excluded.
Film includes **Slit**: tape produced by slitting an already attenuated wide sheet of olefin film; and **Split**: fibrillated slit film.
Not included in this survey is the slit film used for decorative or tying ribbon and such.
Captive means that most or all of the fiber produced is consumed by the company in a vertical operation.

GENERIC NAMES & TRADEMARKS

The following are generic names, in bold type, and a brief description of the fibers covered by each name is shown in regular type.

GLASS FIBER

This fiber is made in two primary forms: continuous strand and staple sliver. Continuous strand is drawn fiber (i.e., from a textile-type bushing), while staple sliver, which is produced in relatively small amounts, is a blown fiber.

Glass fiber is produced and sold as filament yarn, strand, roving, mat, chopped strand, milled fiber and staple yarn & sliver. In addition, there are two primary uses for glass fiber: Textile, used by textile mills in conventional constructions (e.g., drapery and tire cord) or Non-Textile, used for nonconventional constructions (e.g., reinforced plastics and roofing shingles).

For additional information, see the definitions on page 256 of the November 1986 *Organon*.

CELLULOSIC (ARTIFICIAL) FIBERS

Acetate: Cellulose acetate. Cigarette filtration tow is excluded.
Triacetate: Cellulose acetate, wherein not less than 92% of the hydroxyl groups are acetylated.
Rayon: Regenerated cellulose, including substitutions for not more than15% of the hydrogens of the hydroxyl groups. Includes high wet modulus fiber.
Cupra: Cuprammonium rayon.
The viscose rayon yarns are identified as **Ind** (industrial or high tenacity yarn) and **reg** (regular or textile yarn).

NONCELLULOSIC (SYNTHETIC) FIBERS

Acrylic: At least 85% acrylonitrile by weight.
Modacrylic: 35% to 84% acrylonitrile by weight, except when it qualifies as rubber.
Azlon: Regenerated natural protein.
Nylon: A long-chain synthetic polyamide in which less than 85% of the amide linkages are attached directly to two aromatic rings. The types are identified as 6, 66, etc. Where a company produces both type 6 and 66, the designation 6/66 is used.
Aramid: A long-chain synthetic polyamide in which at least 85% of the amide linkages are attached directly to two aromatic rings. In this survey, any aramid data are included with nylon.
Olefin: At least 85% ethylene, propylene or other olefin units by weight, except amorphous (noncrystalline) polyolefins qualifying as rubber. **E** means Polyethylene and **P** means Polypropylene. Also see adjoining notes on olefin fiber.
Polyester: At least 85% by weight of an ester of a substituted aromatic carboxylic acid, including but not restricted to substituted terephthalate units, and parasubstituted hydroxybenzoate units.
Saran: At least 80% vinylidene chloride by weight.
Spandex: At least 85% of segmented polyurethane.
Vinal: At least 50% by weight vinyl alcohol and wherein the vinyl alcohol plus acetal units are at least 85% by weight.
Vinyon: At least 85% vinyl chloride by weight.

Other man-made fibers included in this survey, but not listed by the FTC, are **Polycarbonate** (U.S.A.), **Polychlal** (Japan), **Promix** (Japan) and **TFE-&FEP-fluorocarbon** (Fluoro)(Japan, U.S.A. & U.S.S.R.).

Not covered in this survey are fibers which would fall under the FTC's generic designations of rubber, lastrile, metallic and novoloid. Fibers falling under the FTC designations of anidex and nytril are no longer produced.

Carbon fibers are not included in this survey.

International Standard #2076, "Generic Names of Man-Made Fibres," as established by the International Organization for Standardization, lists some 23 names, of which the following are similar to the FTC designations: cupro, viscose, acetate, triacetate, acrylic, modacrylic, nylon or polyamide, polyester and glass. The IOS also lists modal (regenerated cellulose obtained by processes giving a high tenacity and a high wet modulus), alginate (metallic salts of alginic acid), chlorofibre (similar to the FTC's saran and vinyon), elastane (similar to the FTC's spandex), elastodiene, fluorofibre, polycarbamide, polyethylene & polypropylene (similar to the FTC's olefin), polyurethane, trivinyl and vinylal (similar to the FTC's vinal).

ALBANIA

(Producer not yet known)
Acrylic (staple)
Polyester (yarn & staple*)

ARGENTINA

COAFI S.A.
Polyester Buenos Aires (yarn)

DUCILO S.A.I.C.
Nylon 66 Berazategui & Mercedes *Nylon Ducilo* (yarn)
Spandex Mercedes (fused multifil or coalesced monofil)

HISISA ARGENTINA S.A.I.C.I.F.
Acrylic Baradero *Cashmilon* (staple)

MANUFACTURAS DE FIBRAS SYNTETICAS (formerly Petroquimica Sudamericana)
Nylon 6 Olmos - Lapi (yarn)
Polyester Olmos - Lapi (yarn & staple)

MITEXTIL S.A.
Nylon 6 Buenos Aires (yarn)

M. NAHMIAS S.A.C.I.
Polyester Buenos Aires (yarn)

NICIEZA y TAVERNA HNOS. S.A.
Nylon 6 Chivilcoy *Grilon* (monofil)

RHODIA ARGENTINA QUIMICA e TEXTIL
Acetate Quilmes (yarn)
Polyester Quilmes *Tergal* (yarn)

SOCIEDAD NUEVAS INDUSTRIAS ARGENTINAS FIBRAS ARTIFICIALES S.A.I.C.F.I. (SNIAFA)
Nylon 6 Hernández-La Plata *Snialon* (yarn)
Rayon Plátanos (reg yarn & staple)

SUDAMTEX S.A. TEXTIL SUDAMERICANA
Polyester Azul *Acrocel* (staple)

VALENCIANA ARGENTINA S.A.
Nylon 6 Buenos Aires (yarn)

OLEFIN FIBER

AGAPOL S.A. (P yarn)

MANUFACTURA FORTI ARGENTINA S.A.C.I.A.F.I. Buenos Aires (P yarn & staple)

PANAMERICA DE PLASTICOS S.A.I.C. Olivos (P staple)

PETROQUIMICA Cuyo, Mondoza (P yarn)

TEXTILYUTE S.A.I.C. Isidro Casanova (P film)

VINISA S.A.I.C. Buenos Aires *Rafistal, Strofil* (E & P monofil)

ARGENTINA (continued)

GLASS FIBER

VIDRIERIA ARGENTINA S.A. (VASA) Llavallol *Texover*

AUSTRALIA

FIBREMAKERS LTD.
Biconstituent Mulgrave, Victoria *Front Runner* (melded fabric)
Nylon 66 Bayswater, Victoria *Bri-Nylon* (yarn & monofil), Penrith, N.S.W. (tire cord)
Polyester Bayswater *Terylene* (yarn, staple & tow)

UNITED CARPET MILLS PTY. LTD.
Nylon 6 Thomastown, Victoria *Unilon* (yarn)
Polyester Thomastown (yarn)

In addition to the above, VILENE AUSTRALIA reportedly produces spunbonded products at Minto, N.S.W.; these are believed to be principally based on cellulosic fiber, but some polypropylene may be used.

OLEFIN FIBER

AMOCO FABRICS & FIBERS COMPANY, PATCHOGUE PLYMOUTH DIVISION Liverpool, N.S.W. *Poly Bac, Propex* (P film)

SARLON INDUSTRIES PTY. LTD Punchbowl, N.S.W. (E & P monofil & film)

OLEFIN FILM FIBER, only

A. ABRAHAMS & SONS PTY. LTD. Clayton, Victoria (*Koala, Polytex*)

CORDEX INDUSTRIES PTY. LTD. Gladesville, N.S.W.

GEO. KINNEAR & SONS PTY. LTD. Footscray, Victoria (*Emu*)

H. J. PENNO Adelaide, South Australia

TAPEX PTY. LTD. Sydney, N.S.W.

GLASS FIBER

ACI FIBREGLASS, A Unit of ACI Australia, Ltd. Dandenong, Victoria

AUSTRIA

AUSTRIA FASERWERKE G.m.b.H.
Polyester Lenzing *Trevira* (staple)

CHEMIEFASER LENZING A.G.*
Fluoro Lenzing (yarn & staple)
Rayon Lenzing (staple)

AUSTRIA (continued)

GLANZSTOFF AUSTRIA G.m.b.H. (formely Enka-Austria)
Rayon — St. Pölten (ind & reg yarn)

LENZING A.G. •
Rayon — Lenzing *Lenzing Viscose*
Lenzing *Modal* (staple)
Fluoro — Lenzing *Lenzing PTFE* (yarn & staple)
Polyimid* — Lenzing *P84* (yarn & staple)

OLEFIN FIBER

CHEMIE LINZ A.G. Linz *Asota, Linz-PP-Multifil, Linz-PP-Viles* (P yarn, staple & spunbonded)

LENZING A.G. Lenzing, M. Teufelberger, Wels (P yarn)

OLEFIN FILM FIBER, only

CHEMIEFASER LENZING A.G. Lenzing

M. TEUFELBERGER Wels

SEUTTER Unter Eggendorf

BANGLADESH

ASHUGANJ PETROCHEMICAL COMPLEX
Acrylic — Ashuganj* (staple)

BANGLADESH CHEMICAL INDUSTRIES
Rayon — (staple)

KARNAPHULI RAYON AND CHEMICALS LIMITED
Rayon — Chandraghona, Chittagong (reg yarn & staple*)

PYLON INDUSTRIES LIMITED
Nylon 6 — Fouzdarhat Industrial Estate, Chittagong *Pylon* (yarn)

BELGIUM

BAYER ANTWERPEN N.V.
Nylon 6 — Antwerpen *Dorix* (staple)

BEAULIEU-NYLON S.A. •
Nylon 6 — Kruishoutem, East Flanders (yarn & staple)

CELANESE S.A.
Acetate — Lanaken, Limburg (yarn)
Triacetate — Lanaken (yarn)

FABELTA NINOVE N.V.
Rayon — Ninove, East Flanders (reg yarn)

FABELTA ZWIJNAARDE S.A.
Nylon 66 — Zwijnaarde, East Flanders *Fabelnyl* (yarn)

BELGIUM (continued)

OLEFIN FIBER

DELOTEX (P staple)

N.V. FIBRILO Zele, East Flanders (P staple & film)

S.A. LA LOKEROISE Lokeren, East Flanders *Alpha Carpet, Delta Carpet* (P yarn & staple)

OSTEND STORES & ROPEWORKS S.A. Ostend, West Flanders

POLYFIL N.V. (Subsidiary of Beaulieu) Wielsbeke (P yarn)

T.T.C. POLYOLEFINS S.A. Overpelt, Limburg (P monofil)

OLEFIN FILM FIBER, only

N.V. JONCKVANSTEEN, Passendale

S.A. PHORMIUM, Zele, East Flanders

POLYTEXCO S.P.R.L., Beveren, Kortryk

S.A. U.C.O., Ledeberg, Gent

GLASS FIBER

N.V. BAYER S.A., Antwerpen

OWENS-CORNING FIBERGLAS EUROPE S.A. Battice, Liége *Fiberglas*

Cellulosic production and capacity data are combined with the Netherlands on page 112 - 113. Noncellulosic production and capacity data are combined with the Netherlands and Luxembourg under "Benelux" on page 108 - 109.

BOLIVIA

TEXTURBOL TEXTURIZADORA BOLIVIANA
Polyester — La Paz (yarn)

BRAZIL

ARTEPESCA - S.A. ARTIGOS DE PESCA DO NORDESTE •
Nylon 6 — Igarassu, Pernambuco (monofil)

BANYLSA TECELAGEM DO BRASIL S.A.
Nylon 6 — Aratú, Bahia (yarn)
Polyester — Aratú *Fio Banylsa Poliester* (yarn)

BRASIL VISCOSE S.A. •
Nylon 6 — Jundiapeba, São Paulo *Giorgilon* (staple)
Rayon — Jundiapeba (staple)

CELBRAS INDÚSTRIAS QÚIMICAS E TÊXTEIS S/A
Polyester — Pocos de Caldas, Minas Gerais *Fortrel* (staple)

BRAZIL (continued)

CIA. BRASILEIRA DE SINTÉTICOS
Nylon 6 — Osasco (yarn)
Polyester — Osasco *Trevira* (yarn)

CIA. NITRO QÚIMICA BRASILEIRA
Rayon — São Miguel Paulista, São Paulo (reg yarn)

COBAFI - CIA. BAHIANA DE FIBRAS
Nylon 6 — Camaçari, Bahia (yarn)
Polyester — Camaçari (yarn)

DE MILLUS S.A. INDUSTRIA E COMÉRCIO
Nylon 6 — Rio de Janeiro *Demilon* (yarn)

DU PONT S.A. INDÚSTRIAS QÚIMICAS
Spandex — Paulinia, São Paulo *Lycra* (fused multifil)

EQUIPESCA - EQUIPAMENTOS DE PESCA S.A.
Nylon 6 — Campinas, São Paulo (monofil)

FIBRA S.A.
Nylon 6 — Americana & Osasco, São Paulo *Lilion* (yarn)
Polyester — São Paulo (yarn)
Rayon — Americana (reg yarn & staple)

FISIBA - FÍBRAS SINTÉTICAS DA BAHIA S.A.
Acrylic — Camaçari, Bahia *Triana* (staple)

INDUSTRIAS MATARAZZO DE FIBRAS SINTÉTICAS S.A.
Nylon 6 — São José dos Campos, São Paulo (yarn)

MANAP - MANUFATURA NACIONAL DE PLÁSTICOS •
Nylon 6 — Osasco, São Paulo *Caicara* (monofil)

MARCATTO S.A. IND. E COM. •
Nylon 6 — Jaraguá do Sul, Santa Catarina (monofil)

MAZZAFERRO POLIMEROS E FIBRAS SINTÉTICAS LTDA.
Nylon 6 — São Bernardo do Campo, São Paulo *Grilon, Trilon* (yarn & monofil)
Polyester — São Bernardo do Campo, São Paulo (monofil)

MONOFIL - CIA. INDUSTRIAL DE MONOFILAMENTOS •
Nylon 6 — São Paulo, São Paulo (monofil)

NOVELSPUMA - ESPUMA DE NYLON S.A.
Nylon 6 — São Paulo, São Paulo (yarn)

POLYENKA S.A.
Polyester — Americana, São Paulo *Diolen* (yarn)

POLYNOR S.A. INDÚSTRIA E COMÉRCIO DE FIBRAS SINTETICAS DA PARAIBA
Polyester — João Pessoa, Paraiba *Amilon, Polynor* (yarn & staple)

RHODIA S.A.
Acetate — Santo André, São Paulo (yarn)
Acrylic — São José dos Campos, São Paulo *Crylor* (staple)

BRAZIL (continued)

RHODIA S.A. (continued)
Nylon 66 — Santo André *Dropnyl, Rhodianyl* (yarn & staple)
São Bernardo do Campo, São Paulo *Celtral BCF* (yarn)
Polyester — Santo André *Dropgal-Tergal, Tergal* (yarn & staple)
São José dos Campos *Bidim* (spunbonded)
São Bernardo do Campo *Fortrel* (yarn)
Rayon — São José dos Campos (ind yarn & staple)

RHODIA NORDESTE S.A.
Polyester — Cabo, Pernambuco *Dropgal, Tergal* (yarn & staple)

SEARA IND. TÉXTIL LTDA. •
Nylon 6 — Londrina, Paraná (monofil)

SPUMAR S.A. INDÚSTRIA E COMÉRCIO •
Nylon 6 — São Paulo (yarn)

OLEFIN FIBER

ARTEPESCA - S.A. ARTIGOS DE PESCA DO NORDESTE
Igarassu, Pernambuco (E & P monofil)

BRASIL VISCOSE S.A. Jundiapeba, São Paulo (P staple)

ETRÚRIA S.A. INDÚSTRIA DE FIBRAS E FIOS SINTÉTICOS
Mairinque, São Paulo (P staple)

FADEMAC - FABRICA DE MATERIAIS DE CONSTR. S.A.
Jacarei, São Paulo (P staple)

FITESA - FIÁÇAO TÉXTIL DE EMBALAGENS PLÁSTICAS S.A.
Guaiba, Rio Grande do Sul (P staple) & Porto Alegre, Rio Grande do Sul (P film)

INYLBRA S.A. TAPETES E VELUDOS Diadema, São Paulo (P staple)

MANAP - MANUFATURA NACIONAL DE PLÁSTICOS
Osasco, São Paulo (P monofil)

MARCATTO S.A. IND. E COM. Jaragua do Sul, Santa Catarina (E & P monofil)

MONOFIL - CIA. INDUSTRIAL DE MONOFILAMENTOS
São Paulo, São Paulo (P monofil)

SEARA IND. TÉXTIL LTDA. Londrina, Paraná (E & P monofil)

SPUMAR S.A. INDÚSTRIA E COMÉRCIO São Paulo, *Fibrilene, Polylene, Polyplan, Prolene* (P yarn, staple & film)

TAPETELENE - INDÚSTRIA S.A. Pajucara/Maramguape, Ceará (P staple)

TINTORIA S.A. - BENEFICIAMENTO DE FIO (P yarn)

BRAZIL (continued)

OLEFIN FILM FIBER, only

BRASMEN TOL CACAPAVA S.A., Cacapava, São Paulo

CACIQUE DE EMBALAGENS S.A. INDÚSTRIA E COMÉRCIO, Londrina, Paraná

C.A.T.A. - CIA. AMAZONIA TÉXTIL DE ANIAGEM S.A., Belém, Pará

CIA. FAB. YOLANDA S.A., Recife, Pernambuco

CIA. JAUENSE INDUSTRIAL, Jau, São Paulo

CIA. UNIÁO MANUFATORA DE TECIDOS, Rio de Janeiro

DICOPLAST S.A. INDÚSTRIA E COMÉRCIO DE PLASTICOS, Presidente Prudente, São Paulo

EMPLA - EMBALAGENS PLÁSTICAS S.A., Rio de Janeiro

FIBRASA IND. E COM. DE FIOS E EMBALAGENS S.A., Espirito Santo

FIBROTEX TECELAGEM DE FIBRAS S.A., São Paulo

IMPLASA - INDÚSTRIA DE PLÁSTICOS ZANIOLO S.A., São José dos Pinhais, Paraná

INDÚSTRIA TÉXTIL TSUZUKI LTDA., Suzano, São Paulo

IPLAC DO BRASIL S.A. PLÁSTICOS, Fortaleza, Ceará*

NOVOPLAST IND. E COM. DE PLÁSTICOS, Nova Odessa, São Paulo

PLABASA - PLÁSTICOS DA BAHIA S.A., Salvador, Bahiá

PLASMINAS - PLÁSTICOS MINAS LTDA., Tres Pontas, Minas Gerais

PLÁSTICOS DO PARANÁ LTDA., Londrina, Paraná

PLÁSTICOS LINIL S.A., Recife, Pernambuco

PLÁSTICOS INDÚSTRIA DE EMBALAGENS LTDA., Campinas, São Paulo

QUALITAS IND. E COM. LTDA., São Paulo

SACOPLAST/PLANOSA - PLÁSTICOS DO NORDESTE S.A., Natal, Rio Grande do Norte

GLASS FIBER

OCFIBRAS Rio Claro, São Paulo *Fiberglas*

BULGARIA

KOMBINAT "DIMITAR DIMOV" •

Acrylic	Burgas *Bulana* (staple)
Nylon 6	Vidin *Vidlon* (yarn)
Polyester	Yambol *Yambolen* (yarn, staple & tow)

KOMBINAT "SVILOSA"

Rayon	Svishtov (reg yarn & staple)

OLEFIN FIBER

KOMABINAT "DIMITAR DIMOV" Yambol (P staple)

CANADA

BASF FIBRES INC.

Nylon 6	Amprior, Ontario *Zefran* (yarn & staple)

CELANESE CANADA INC.

Acetate	Drummondville, Quebec (yarn)
Polyester	Millhaven, Ontario *Fortel* (yarn, staple, tow & fiberfill)

COURTAULDS (CANADA) LIMITED

Rayon	Cornwall, Gntario (staple)

DU PONT CANADA INC. •

Nylon 66	Kingston, Ontario *Antron, Cantrece, Du Pont* (yarn, staple & tow)
Polyester	Kingston *Dacron* (yarn)
Spandex	Maitland *Lycra* (fused multifil)

FIRESTONE TEXTILES CO.-A DIVISION OF FIRESTONE CANADA LTD.-LTEE

Nylon 6	Woodstock, Ontario (yarn & monofil)

OLEFIN FIBER

AMOCO FABRICS & FIBERS CO. Brantford & Hawkesbury, Ontario, St. Jean, Quebec *Protel* (P yarn, staple, E & P monofil & P film)

CALKO MILLS LTD. Rivière du Loup, Quebec (P monofil)

CANADA WESTERN CORDAGE CO., LTD. New Westminster, B.C. (P monofil)

DOON TWINES LTD. Kitchener, Ontario (P yarn, monofil & staple)

DU PONT CANADA INC. North Bay, Ontario (P film)

GUELPH TWINES LTD. Guelph, Ontario (P monofil & film)

NOVASTRAND St. John, New Brunswick (P monofil)

POLI-TWINE CORP. LTD. Belleville, Ontario & Saskatoon, Saskatchewan *Polytie, PolyTwine, Spiralok* (P monofil)

SCHLEGEL COMPANY CANADA Oakville (P monofil)

CANADA (continued)

STRUDEX FIBRES LTD., DIVISION OF KRAUS CARPET MILLS LTD. Waterloo (P yarn & staple - captive)

OLEFIN FILM FIBER, only

FIBERWORLD, LTD. Hawkesbury, Ontario

POLYMER INTERNATIONAL (N.S.) LTD. Truro, N.S.

GLASS FIBER

FIBERGLAS CANADA LIMITED Guelph, Ontario *Fiberglas*

CHILE

GOODYEAR DE CHILE, S.A.I.C.
Nylon 6 — Maipú, Santiago (yarn & monofil)

INDUSTRIAS QUIMICAS GENERALES S.A.
Rayon — Quillota, Valparaiso (ind yarn & staple)

LANERA AUSTRAL S.A.
Polyester — Santiago (yarn, staple & tops)

MANUFACTURAS SUMAR S.A.
Nylon 6 — El Pinar 172, Santiago *Crilobal* (yarn)
Polyester — El Pinar 172 *Poligal* (yarn & staple)

QUIMICA INDUSTRIAL S.A.
Polyester — Maipú, Santiago *Polycron* (staple & tops)

CHINA, PEOPLE'S REPUBLIC OF

Although reliable information on locations of man-made fiber plants in the People's Republic of China is not available, every effort has been made to make the following listing as complete as possible.

RAYON and/or ACETATE PLANTS reported at:
Amoy, Antung, Canton, Foshan, Kirin, Nanchang, Nanking, Paoting and Shanghai.
NYLON PLANTS reported at:
Beijing; Hsinhsiang, Paoting Province; Jinzhou; Liaoyang; Pingdings; Shanghai; Shanyi; Sian; Sichuan; Sining; Tianjin and Zhenjiang.
POLYESTER PLANTS reported at:
Beijing; Changzhou, Jiangsu Province; Fangshen, Beijing Province; Guangzhou, Canton Province; Hangchow; Heilongjiang; Jinshan, Shanghai Province; Liaoyang; Nantong; Nanjing, Jiangsu Province; Shanghai; Sichuan; Taiyuan; Tianjin; Tientsin; Xiamen, Funjion Province; Xinhu; Yizheng and Zhenjiang.
ACRYLIC PLANTS reported at:
Chenchiang, Harbin Province; Daquing; Lanzhou; Luda and Shanghai
NONCELLULOSIC PLANTS reported at:
Beijing (vinal); Canton (vinyon); Chunking (vinyon); Foochow (vinyon); Lanzhou (olefin & vinal); Shanghai (vinyon); Shengli (vinyon) and Tientsin (vinyon).

The following three plants have been reported as producing glass fiber: Shanghai Glass Fiber Plant, Shanghai Tungfanghung Glass Fiber Plant and Tientsin Glass Fiber Plant.

COLOMBIA

COLTEFIBRAS S.A.
Polyester — Igatui, Antioquia* (yarn & staple)

ENKA DE COLOMBIA S.A.
Nylon 6 — Girardota, Antioquia *Enkalon* (yarn)
Polyester — Girardota *Terlenka* (yarn & staple)

FABRICA DE HILAZAS VANYLON S.A.
Nylon 6 — Barranquilla, Atlántico *Vanylon* (yarn & monofil)

POLIMEROS COLOMBIANOS S.A.
Polyester — Medellin, Antioquia *Primel* (yarn, staple, tow & tops)

ZYLETTE (LAFAYETTE)
Polyester — Bogotá (yarn)

OLEFIN FILM FIBER, only

COMPANIA NACIONAL DE EMPAQUES S.A. Medellin

PLASTICOS DE MAGDELENA LTDA. Santa Marta

POLYMER DE COLOMBIA S.A. Cartagena

COSTA RICA

OLYMPIC FIBERS, S.A.
Polyester — San Antonio de Belén (yarn)

CUBA

INDUSTRIAS CONSOLIDADAS DE MATANZAS, S.A.
Rayon — Matanzas (ind & reg yarn & staple)

CYPRUS

OLEFIN FIBER

LORDOS POLYSAC (LIMASSOL) LIMITED Limassol (P film)

CZECHOSLOVAKIA

CHEMICKÉ ZÁVODY JURAJA DIMITROVA, N.P.•
(GEORGE DIMITROV CHEMICAL WORKS, NATIONAL CORP.)
Rayon — Bratislava, Slovakia (reg yarn & staple)

CHEMLON, N.P. (CHEMLON, NATIONAL CORPORATION)
Nylon 6 — Humenné, Slovakia *Chemlon* (yarn)

CHEMOPETROL
Rayon — Meratovice (yarn)

CZECHOSLOVAKIA (continued)

CHEMOSVIT, N.P. (CHEMOSVIT, NATIONAL CORPORATION) •

Nylon 6	Svit, Slovakia *Svitontex* (yarn & staple)
Rayon	Svit (reg yarn)

SEVEROCESKÉ CHEMICKÉ ZÁVODY, N.P. (NORTH BOHEMIAN CHEMICAL WORKS, NATIONAL CORP.)

Rayon	Lovosice, Bohemia (ind yarn)

SILON, N.P. (SILON, NATIONAL CORPORATION)

Nylon 6	Planá nad Luznící, Bohemia *Silon* (yarn & monofil)
Polyester	Planá nad Luznící *Tesil, Tevyro, Velana* (staple, tow & fiberfill)

SLOVENSKÝ HODVÁB, N.P. (SLOVAKIAN FILAMENT YARN, NATIONAL CORPORATION)

Polyester	Senica nad Myjavou, Slovakia *Slotera* (yarn)
Rayon	Senica nad Myjavou (reg yarn)

SPOLANA, N.P. (SPOLANA, NATIONAL CORPORATION)

Rayon	Neratovice, Bohemia (staple)

OLEFIN FIBER

CHEMICKÉ ZÁVODY JURAJA DIMITROVA, N.P. Bratislava *Istrona, Labren, Nobelex* (P yarn & staple)

CHEMOSVIT,N.P. Svit *Prolen, Texizol* (P yarn & spunbonded)

JUTA, N.P. Úpice, Bohemia (P spunbonded)

OLEFIN FILM FIBER, only

JUTA, N.P. Adamov, Moravia and Bernartice u Trutnova, Dvur Králové, Jilemnice & Úpice, Bohemia

POVAZSKÉ CHEMICKÉ ZÁVODY, N.P. Zilina, Slovakia

TECHNOLEN, N.P. Lomnice nad Popelkou, Bohemia

GLASS FIBER

SKLOPLAST, N.P. (SKLOPLAST, NATIONAL CORPORATION) Trnava, Slovakia (yarn, chopped strand & mat)

VERTEX, N.P. (VERTEX, NATIONAL CORPORATION) Litomysl, Bohemia (yarn, roving, mat & staple yarn)

DENMARK

OLEFIN FIBER

A/S FIBERTEX Aalborg (P staple)

ESBJERG TOVVAERKSFABRIK A/S Esbjerg *Westflex* (E & P monofil & film; P staple)

DENMARK (continued)

JACOB HOLM VARDE A/S Varde *Danaklon, IHS* (E & P staple & film), *Krenit* (P reinforcing fiber)

OLEFIN FILM FIBER, only

R.F.W. PLAST-INDUSTRI A/S Vejle

ROBLON A/S Frederikshavn

EQUADOR

ECUATORIANA DE TEJIDOS DE PUNTA

Polyester	Punta (yarn)

ENKADOR S.A.

Polyester	Sangolqui, Pichincha (yarn)

FIBRATEX S.A.

Polyester	Guayaquil, Guayas (yarn)

EGYPT

ESTABLISSEMENTS INDUSTRIELS POUR LA SOIE ET LE COTON S.A.A. (E.S.C.O.)

Rayon	Cairo (reg yarn)

MISR AL-AMIRIYA INDUSTRIAL FIBRE CO.

Polyester	Amiriya (yarn* & staple)

SOCIETE MISR POUR LA RAYONNE S.A.A. (MISR RAYON CO.)

Nylon 6	Kafr-el-Dawar *Misrnylon* (yarn), *Misrnylon* (staple)
Polyester	Kafr-el-Dawar *Polymisr* (yarn)
Rayon	Kafr-el-Dawar (reg yarn & staple)

EL SALVADOR

OLEFIN FIBER

FILAMENTOS Y PERFILES, S.A. (FILPERSA) San Salvador *Duraplen* (E & P monofil)

SALVAPLASTIC, S.A. San Salvador (P monofil

FINLAND

FINEFIBRE OY

Nylon 66	Tornio (yarn)

KEMIRA OY SÄTERI

Rayon	Valkeakoski (staple)

OLEFIN FILM FIBER, only

MANILLA OY Turku

FINLAND (continued)

PIIPPO OY Lempäälä

GLASS FIBER

A. AHLSTROM OY GLASSFIBRE Karhula *Kuitulasi* (roving & mat)

FRANCE

CELLATEX (a subsidiary of Rhône-Poulenc-Textile)
Rayon — Givet, Ardennes; Grenoble, Isère (reg yarn)

COURTAULDS S.A.
Acrylic — Pont du Leu, Coquelles, Pas-de-Calais *Courtelle* (staple)
Rayon — Pont du Leu (staple)

NYSAM S.A.
Nylon 6 — St. Quentin, Aisne *Lilion* (yarn)

RHÔNE-POULENC-FIBRES (a subsidiary of Rhône-Poulenc-Textile)
Nylon 66 — Albi, Tarn; St. Laurent-Blangy, Pas-de-Calais, St. Quentin, Aisne & Valance, Drôme *Nylfrance* (yarn & staple)
Polyester — Gauchy, Aisne & Valence *Bidim* (spunbonded), *Tergal* (yarn & staple)

RHOVYL (a subsidiary of Rhône-Poulenc-Textile)
Vinyon — Tronville-en-Barrois, Meuse *Clévyl, Rhovyl, Thermovyl* (yarn & staple)

SOCIETE CHOMARAT
Nylon 6 — Mariac (yarn - captive)

OLEFIN FIBER

PLASTIQUE DE ROUBAIX Roubaix (P film & staple)

SODOCA FABRICATION DE NONTISSES SYNTHETIQUES S.A.R.L. Neuf Brisach, Haut-Rhin (P spunbonded)

OLEFIN FILM FIBER, only

ETS. AMMANN & CIE. Saint-Louis

ETS. BATAILLE Rosendael

BIHR FRERES S.A. Xertigny

BOUSSAC SAINT FRERES S.A. Flixecourt

SEINE & LYS Paris

GLASS FIBER

OWENS-CORNING FIBERGLAS FRANCE S.A. L'Ardoise, Gard *Fiberglas*

VETROTEX SAINT-GOBAIN Chambéry, Savoie-Fils et Fibres de Renforcement *Vetrotex*

GERMAN DEMOCRATIC REPUBLIC
DEUTSCHE DEMOKRATISCHE REPUBLIK (EASTERN)

(Those facilities indicated by # are part of the trust VEB Chemiefaserkombinat Schwarza "Wilheim Pieck".)

CHEMIEFASERWERK "FRIEDRICH ENGELS" #
Acrylic — Premnitz, Krs. Rathenow *Wolpryla* (staple)

CHEMIEFASERWERK "FRIEDRICH ENGELS" # (continued)
Nylon 6 — Premnitz *Dederon* (staple)
Polyester — Premnitz *Grisuten* (staple)
Rayon — Premnitz (reg yarn)

CHEMIEFASERWERK "WILHELM-PIECK-STADT" GUBEN #
Nylon 6 — Guben *Dederon* (yarn & monofil)
Polyester — Guben *Grisuten* (yarn)

KUNSTSEIDENWERK "CLARA ZETKIN, ELSTERBERG" #
Rayon — Elsterberg, Krs. Greiz (reg yarn)

SACHSISCHES KUNSTSEIDENWERK "SIEGFRIED RADEL" #
Polyester — Pirna* (yarn)
Rayon — Pirna (ind, reg & cupra yarn)

SACHSISCHE ZELLWOLLE #
Rayon — Plauen (staple)

SPINNSTOFFWERK "OTTO BUCHWITZ" #
Rayon — Glauchau (staple)

VEB CHEMIEFASERKOMBINAT SCHWARZA "WILHELM PIECK"
Nylon 6 — Schwarza, Krs. Rudolstadt *Dederon* (yarn)
Rayon — Schwarza (staple)

VEB FILMFABRIK FOTOCHEMISCHES KOMBINAT
Acrylic — Wolfen, Krs. Bitterfeld *Wolpryla* (staple)
Rayon — Wolfen (ind yarn & staple)
Vinyon — Wolfen *Piviacid* (staple)

ZELLSTOFF-UND ZELLWOLLWERKE WITTENBERGE #
Rayon — Wittenberge (staple)

GLASS FIBER

VEB GLASSEIDENWERK *Oschatz Glasseidengewebe, Glasseiden-Roving, Glasseiden-Stapelbindermatten, Glasseiden-Twist, Glasseiden-Zwirn, Roving-Gewebe*

GERMANY, FEDERAL REPUBLIC OF
BUNDESREPUBLIK DEUTSCHLAND (WESTERN)

BAYER A.G.
Acrylic — Dormagen *Bayer-Textilfaser Dralon* (yarn & staple)
Nylon 6 — Dormagen *Perlon-Draht* (monofil)
Spandex — Dormagen *Bayer-Textilfaser Dorlastan* (fused multifil)

BOLTA WERKE G.m.b.H.
Saran — Nürnberg *Bolta* (monofil)

GERMANY, FEDERAL REPUBLIC OF (continued)

BUNDESREPUBLIK DEUTSCHLAND (WESTERN)

DEUTSCHE ICI G.m.b.H.

Nylon 66	Östringen *Timbrelle* (yarn & staple)
Polyester	Östringen *Terylene* (yarn)

DU PONT DE NEMOURS (DEUTSCHLAND) G.m.b.H.

Nylon 66	Uentrop, Kreis Unna (yarn & staple)
Polyester	Uentrop *Dacron* (staple, tow & fiberfill)

ENKA A.G.

Nylon 6 & 66	Obernburg *Enka Nylon* (yarn), *Enka Perlon* (yarn)
Polyester	Oberbruch & Obernburg *Diolen* (yarn)
Rayon	Kelsterbach, Oberbruch & Obernburg (ind & reg yarn)

E. HAHL KG •

Nylon 6	Munderkingen (staple)

FASERWERKE LINGEN G.m.b.H.

Acrylic	Lingen *Bayer-Texilfasern Orlon* (staple)

HOECHST A.G.

Acrylic	Kelheim/Donau *Dolan* (staple)
Polyester	Bad Hersfeld, Hessen & Bobingen/Augsburg-land *Trevira* (yarn, staple & spunbonded), *Trevira-Draht* (monofil)
Rayon	Kelheim/Donau (staple)

KUNERT

Nylon 66	Deggendorf (yarn)
Polyester	Deggendorf (yarn)

LUTRAVIL SPINNVLIES •

Nylon 6	Kaiserslautern *Lutrabond* (spunbonded)
Polyester	Kaiserslautern *Lutradur* (spunbonded)

NORDDEUTSCHE FASERWERKE G.m.b.H.

Nylon 6 & 66	Neumünster *SIKS NYLON* (yarn), *SIKS PERLON* (yarn & staple)
Polyester	Neumünster *Avitron* (yarn)

PHOENIX GUMMIWERK A.G.

Saran	Hamburg/Harburg *Harlan* (monofil)

HEINRICH REINHOLD KG •

Nylon 6	Selbitz, Bayern (staple)

RHODIA A.G.

Acetate	Freiburg/Br. *RHIAKABEL* (tow)
Nylon 66	Freiburg/Br. & Rottweil a. N/Württ. *RHOA-fil Nyltest, RHOA-Spinnfaser, RHOA-tex HELANCA* (yarn & staple)
Polyester	Freiburg/Br. *RHOA-fil TERGAL, RHOA-tex TERGAL* (yarn)

SPINNSTOFFABRIK ZEHLENDORF A.G.

Polyester	Berlin-Zehlendorf *Trevira* (yarn & staple)

GERMANY, FEDERAL REPUBLIC OF (continued)

BUNDESREPUBLIK DEUTSCHLAND (WESTERN)

WACKER-CHEMIE G.m.b.H.

Vinal	München-Burghausen *Wacker MP-Faser* (staple)

OLEFIN FIBER

J. F. ADOLFF A.G. Backnang (P film)

AMOCO FABRICS & FIBERS CO., DIVISION OF AMOCO (DEUTSCHLAND) G.m.b.H. Gronau (P film & staple)

J. H. BENECKE G.m.b.H. Peine *Corovin* (P spunbonded)

R. B. J. RUDOLF BILLERMANN KG Emsdetten (P yarn & staple)

CHEMISCHE WERKE HÜLS A.G. Marl, Kreis Recklinghausen, Westphalia *Vestolan* (E & P monofil)

DYNAMIT NOBEL A.G. Troisdorf, Bez. Köln *Trofil* (E & P monofil & tow)

DEUFIL Bergkamen (P yarn)

FASERWERKE BOTTROP G.m.b.H. Bottrop (P staple)

FÜSSENER TEXTIL A.G. Füssen (P film)

GEO. GLEISTEIN & SOHN Bremen-Vegesack (P film & monofil)

E. HAHL KG Munderkingen (P monofil)

HOECHST A.G. Bobingen, Augsburg-Land (P staple)

RUDOLF HILLER KG (P monofil)

LUTRAVIL SPINNVLIES Kaiserslautern *Lutrasil* (P spunbonded)

HEINRICH REINHOLD KG Selbitz/Bayern (P staple)

STEEN Hamburg (P staple)

WESTFALIA SPINNEREI U. KUNSTOFFWERK SCHEM KG Minden (P monofil & film)

OLEFIN FILM FIBER, only

BAUMHÜTER G.m.b.H. Wiedenbrück

BREMER WOLL-KÄMMEREI Bremen-Blumenthal

ERNST JAEGER Düsseldorf-Reisholz

HEINZ G. JUNEMANN (NORDHESSISCHE HAARWARENFABRIK) Felsberg

KUSGA KUNSTOFFGARNE G.m.b.H. Mainz

POLYDRESS PLASTIC G.m.b.H. Michelstadt

GERMANY, FEDERAL REPUBLIC OF (continued)

BUNDESREPUBLIK DEUTSCHLAND (WESTERN)

POLYUNION KUNSTOFFWERK Mesum

SCHILGEN Emsdetten

SPOHN G.m.b.H Freiburg

B. T. F. TECKLENBORG & CO. Bremen-Grohn

DR. KARL WETEKAM & CO. Melsungen

GLASS FIBER

GEVETEX-TEXTILGLAS G.m.b.H. Aachen & Herzogenrath
Fiberglas Vetrotex

SCHULLER GLASWERK Westheim

GREECE

ETMA S.A.
Nylon 6/66 Athens (yarn)
Rayon Athens (reg yarn)

HELLENIC SYNTHETICS INDUSTRY
Polyester Kalogreza (yarn)

POLYETMA LTD.
Polyester Athens (yarn)

VOMVICRYL S.A. (affiliate of "Vomvix" S.A.)
Acrylic Stylis, near Lamia (yarn, staple, tow & tops)

"VOMVIX" S.A.
Nylon 6/66 Athens (yarn)
Polyester Athens (yarn)

OLEFIN FIBER

VIOFARM Argos (P staple)

OLEFIN FILM FIBER, only

ARIPLAST S.A. Athens

BIOSISAL Athens

DESSILA Piraeus

ELVISAK Athens

MARINE ROPE Athens

OLYMPIC ROPES Piraeus

SISAL ROPERY Salonika

C. VELLIS HEIRS S.A. Piraeus

GREECE (continued)

VESY S.A. SYNTHETIC MATERIALS INDUSTRY Piraeus

GUATEMALA

HILOS SINTETICOS CENTROAMERICANOS, S.A.
Nylon 6 San José Pinula, Guatemala (yarn) (idle)

OLEFIN FIBER

CORDELERIA LA RAPIDA Guatemala, Guatemala (P monofil)

HONDURAS

OLEFIN FIBER

POLYMER (subsidiary of United Brands) San Pedro Sula (P film)

HUNGARY

MAGYAR VISCOSAGYÁR (Hungarian Viscose Factory) •
Acrylic Nyergesújfalu *Crumeron* (staple)
Nylon 6 Nyergesujfalu *Danamid* (yarn & staple)
Rayon Nyergesújfalu (staple)

OLEFIN FIBER

KENDER JUTA TEXTILIPARI V. Budapest (P film)

KENDERFONÓ ÉS SZÖVÖIPARI V. SZEGED Szeged (P film)

MAGYAR VISCOSAGYÁR Nyergesújfalu *Popril* (P staple)

SOPRONI SZÖNYEGGYÁR Sopron *Sopilen* (P yarn)

TISZA CHEMICAL COMBINE Lenin Varas (P staple)

INDIA

ACME INVESTMENTS LTD.
Nylon 6 Panki Industrial Area, Kanpur* (yarn)

THE AHMEDABAD MFG. & CALICO PRINTING CO. LTD.
CALICO POLYESTER FIBRE DIV.
Polyester Baroda, Gujarat *Ilacron* (staple)

ANDHRA PRADESH RAYONS LTD.
Rayon Kamalapuram, Warangal District, Andhra Pradresh* (staple)

THE BARODA RAYON CORPORATION LIMITED
Nylon 6 Udhna, Gujarat *Snialon* (yarn)
Polyester Udhna *Sniater* (yarn)
Rayon Udhna (reg yarn)

INDIA (continued)

BONGAIGAON REFINERY AND PETROCHEMICALS LTD.
Polyester — Goalpara, Assam* (staple)

CENTURY ENKA LIMITED
Nylon 6 — Bhosari, Pune, Maharashtra* *Enkalon* (yarn)
Polyester — Bhosari (yarn)

CENTURY RAYON (Prop.: The Century Spg. & Mfg. Co. Ltd.)
Rayon — Kalyan, near Bombay, Maharashtra (ind & reg yarn)

GARWARE NYLONS LIMITED
Nylon 6 — Pimpri, Pune, Maharashtra* *Garware* (yarn & monofil)
Polyester — Pimpri (yarn)

THE GWALIOR RAYON SILK MFG. (WVG) CO. LIMITED
Rayon — Birlagram, Nagda, Madhya Pradesh & Birlakootoam, Mavoor, Kerala (staple)
Polyester — Rajgarh, Madhya, Pradesh (staple*)

HARYANA PETROCHEMICALS LTD.
Polyester — Rewari, Haryana* (yarn)

INDIA POLYFIBRES
Polyester — Parakandauli & Lucknow, Uttar Pradesh (staple)

INDIAN EXPLOSIVES LTD.
Polyester — Thane, near Bombay, Maharashtra *Terene* (staple)

INDIAN ORGANIC CHEMICALS LIMITED
Polyester — Manali, Madras, Tamil Nadu *Futura* (yarn & staple)

INDIAN PETROCHEMICALS CORP. LTD.
Acrylic — Vadodara, Baroda, Gujarat *Cashmilon* (staple)

THE INDIAN RAYON CORPORATION LIMITED
Rayon — Veraval, Gujarat (reg yarn)
Polyester — Broach (yarn*)

J.K. RAYON, J.K. PURI
Rayon — Kanpur, Uttar Pradesh (reg yarn)

J.K. SYNTHETICS LIMITED
Acrylic — Kota, Rajasthan *Jayacrylic* (staple)
Nylon 6 — Kota *Jayanka, Jaycord, Jaykalon* (yarn, monofil & staple)
Polyester — Calcutta, Kota, Orissa* *Jakaylene* (yarn & staple)

JAGATJIT COTTON TEXTILE MILLS LTD.
Nylon 6 — Hoshiarpur, Punjab (yarn)
Polyester — Hoshiarpur (yarn)

KARNATAKA STATE INDUSTRIAL DEVELOPMENT CORPORATION LIMITED
Nylon 6 — Karnataka* (yarn)
Polyester — Karnataka* (yarn & staple)

INDIA (continued)

KESORAM RAYON (Prop.: Kesoram Industries and Cotton Mills Ltd.)
Rayon — Nayasarai, Hooghly, West Bengal (reg yarn)

MODIPON LIMITED
Nylon 6 — Modinagar, Uttar Pradesh *Modipon* (yarn)
Polyester — Modinagar (yarn)
Rayon — (staple*)

THE NATIONAL RAYON CORPORATION LIMITED
Nylon 6 — Mohone-Kalyan, near Bombay, Maharashtra* *N.R.C* (yarn)
Rayon — Mohone-Kalyan (ind & reg yarn)

NIRLON SYNTHETIC FIBRES & CHEMICALS LIMITED
Nylon 6 — Bombay, Maharashtra *Nircord, Nirlon* (yarn & monofil)
Polyester — Bombay *Nirester* (yarn)

ORISSA SYNTHETICS LTD.
Polyester — Orissa* (staple)

ORKAY SILK MILLS PVT. LTD.
Polyester — Patalganga, Maharashtra* (yarn)

PARSURAM PURIA SYNTHETICS LTD.
Polyester — Alwar, Rajasthan* (yarn)

PASUPATI ACRYLON LIMITED
Acrylic — Moradabad, Uttar Pradesh* (staple)

PETROFILS COOPERATIVE LIMITED
Polyester — Jawaharnagar, Baroda, Gujarat (yarn)

PRADESHIYA INDUSTRIAL INVESTMENT CORPORATION OF UTTAR PRADESH
Polyester — Uttar Pradesh* (yarn)

PUNJAB STATE INDUSTRIAL DEVELOPMENT CORP. LTD.
Acrylic — Punjab (staple)
Polyester — Punjab (staple)

RELIANCE INDUSTRIES LTD.
Polyester — Patalganga, Maharashtra* (yarn & staple*)

SHREE SYNTHETICS LIMITED
Nylon 6 — Naulakhi, Ujjain, Madhya Pradesh *Shreelon* (yarn)
Polyester — Naulakhi *Shreester* (yarn)

SHRIRAM FIBRES LIMITED
Nylon 6 — Manali, Madras, Tamil Nadu *Tufcord* (yarn)

SHRIRAM RAYONS
Rayon — Kota, Rajasthan (ind yarn)
Nylon 6 — Kota (yarn)

THE SIRSILK LIMITED
Acetate — Sirpur-Kaghaznagar, Andhra Pradesh (yarn & staple)

INDIA (continued)

SOUTH INDIA VISCOSE LIMITED
Rayon — Sirumughai, near Mettupalayam, Tamil Nadu (reg yarn & staple)

STRETCH FIBRES (INDIA) LIMITED
Nylon 6 — Nagpur, Maharashtra *SF* (yarn)

SWADESHI POLYTEX LIMITED
Polyester — Gaziabad, Uttar Pradesh *Jailene* (staple)

THAPAR DU PONT LTD.
Nylon — Goa (ind yarn)

THE TRAVANCORE RAYONS LIMITED
Rayon — Rayonpuram, Kerala (reg yarn)

TUNGABHADRA FIBRES LTD.
Rayon — Tungabhadra, Andhra Pradesh (staple)

OLEFIN FIBER

AMITABH TEXTILE MILLS LTD. Dehra Dun, Uttar Pradesh* (P yarn)

ANIL KUMAR JAIN Ankleshwar, Gujarat* (P yarn)

GUJARAT FILAMENTS CORPORATION LTD. Baroda, Gujarat* (P yarn)

GUPTA NEEDLE INDUSTRIES PVT. LTD. Dharuhera, Haryana* (P yarn)

INDO SYNTHETICS CORP. (P yarn*)

J.K. BHAGAT Bhiwand, Alwar, Rajasthan* (P yarn)

KALYANI ASBESTOS CEMENT PVT. LTD. Kalol, Gujarat* (P yarn)

NEOMER LIMITED Baroda, Panchmahal, Gujarat *Proplon* (P staple)

NIAGARA INTERNATIONAL (P yarn*)

POLYPROP INDUSTRIES Dharuhera, Haryana* (P yarn)

RAJASTHAN PETROSYNTHETICS LTD. Udaipur, Rajasthan* (P yarn)

RAJENDRA V. PATEL Cambay, Gujarat* (P yarn)

SANJEEV SHRIYA Uttar Pradesh* (P yarn)

INDONESIA

INDONESIA PENELITIAN SELULOSA (Cellulose Research Institute)

P.F. FIBRES e CHEMICALS
Nylon — (yarn)

INDONESIA (continued)

P.T. BERKAT INDAH AGUNG
Rayon — Tangerang, West Java* (staple)

P.T. INDO-BHARAT RAYON
Rayon — Desa Cilangkap, Purwakarta (staple)

P.T. INDONESIA ASAHI CHEMICAL
Nylon 6 — Jatiluhur, Purwakarta, West Java (yarn)

P.T. INDONESIA TORAY SYNTHETICS
Nylon 6 — Tangerang, West Java (yarn)
Polyester — Tangerang (staple)

P.T. INDUSTRI SANDANG I
Polyester — Tangerang* (staple)

P.T. INDUSTRI SANDANG II
Rayon — South Sumatra* & West Kalimantan* (staple)

P.T. INTI
Rayon — West Kalimanton (staple*)

P.T. INTI INDAH RAYON UTAMA
Rayon — Sosorladang, N. Sumatra* (yarn)

P.T. KUMA FIBER (P.T. Kuraray Manunggal Fibre Industries)
Polyester — Cikokol, Tangerang, West Java (staple)

P.T. POLYSINDO EKA PERKASA
Polyester — Kaliwungu, Kendal, C. Java (staple)

P.T. SHINTA-INDAH DJAYA
Nylon 6 — Tangerang, West Java (yarn)
Polyester — Tangerang *Shinta* (yarn)

P.T. SOUTH PACIFIC VISCOSE
Rayon — Purwakarta, West Java (staple)

P.T. SUSILIA INDAH SYNTHETIC FIBRES INDUSTRIES
Polyester — Djakarta*, Tangerang, West Java (yarn & staple)

P.T. TEXMACO TAMAN SYNTHETIC
Polyester — Kaliwungu Kendal, West Java (yarn)

P.T. TIFICO (P.T. Teijin Indonesia Fibre Corp.)
Polyester — Tangerang, West Java (yarn & staple)

P.T. TOLARAM
Polyester — (yarn)

P.T. TRI REMPOA SOLO SYNTHETIC
Polyester — Rempon, Tangerang, West Java* (staple)

P.T. VASTEX BIMA INDUSTRIES
Polyester — Jalan Gedebage Ujungberung Bandung (yarn)

P.T. YASINTA
Polyester — Tangerang, West Java (yarn)

RAUMAQ ENTERPRISES
Nylon — (yarn)

IRAN

PARSYLON CORPORATION
Nylon 6 — Khoram-Abad (yarn)

POLYACRYL IRAN CORPORATION
Acrylic — Isfahan (staple)
Polyester — Isfahan (yarn & staple)

SHERKAT SAHAMI ALIAF
Nylon 6 — Tehran *Aliaf* (yarn)

OLEFIN FIBER

JAHANCITT SPINNING & WEAVING CO. Tehran (P film)

IRAQ

HINDIYA RAYON FACTORY
Rayon — Hindiya (reg yarn & staple)

OLEFIN FIBER

STATE ENTERPRISE FOR PLASTIC BAGS Tikrit

IRELAND

ASAHI SYNTHETIC FIBRES (IRELAND) LTD.
Acrylic — Ballina, Mayon *Cashmilon* (staple)

LIRELLE (IRELAND) LTD. (A Division of Unifi, Inc.)
Polyester — Letterkenny *Lirelle* (yarn)

WELLMAN INTERNATIONAL LTD.
Nylon 6 & 66 — Mullagh, Kells, Meath *Wellon* (staple)
Polyester — Mullagh *Filwell, Wellene* (staple)

OLEFIN FIBER

F. DRAKE (IRELAND) LTD. Moate, Westmeath (P staple)

J. & L.F. GOODBODY (SYNTHETICS) LTD. Clara, Offaly (P yarn & film)

OLEFIN FILM FIBER, only

IRISH POLYSACKS LTD. Blarney, Cork

IRISH ROPES LTD. Newbridge, Kildare

POLYTEX LTD.

ISRAEL

ISRAEL CHEMICAL FIBRES LIMITED
Acrylic — Ashdod (staple & tow)

NILIT
Nylon 66 — Migdal Ha-Emek (yarn)

ITALY

ALBATESSILE S.p.A.
Polyester — Alba, Piemonte (yarn)

AQUAFIL S.p.A.
Nylon 6 — Arco di Trento, Trentino *Aqualon* (yarn)
Polyester — Arco di Trento (yarn)

BEMBERG S.p.A.
Nylon 6 — Gozzano, Piemonte *Ortalion* (yarn)
Cupra — Gozzano *Bemberg* (yarn)

CARPOL S.p.A.
Nylon 6 — Forli, Emilia Romagna (yarn)

ENICHEM FIBRE S.p.A. (formerly Anicfibre)
Acrylic — Ottana & Porto Torres, Sardegna *Euroacril, Sironil* (staple & tow)
Nylon 6 — Pisticci, Lucania *Nivion* (yarn & staple)
Polyester — Ottana *Fidion* (staple & tow)
Polyesteramide — Pisticci (pilot plant), Seris (yarn)

FILATURA DI VAL LESINA S.p.A.
Polyester — Andalo Valtellino, Lombardia *Valena* (yarn)

FIMALON S.p.A.
Nylon 66 — Castelnuovo Valsugana, Trentino Alto Adige (yarn)

FORTEX SIDAC S.p.A.
Nylon 6 — Forli, Emilia Romagna *Forlion* (yarn)

FRATELLI FRANCHI S.p.A.
Nylon 6 — Canapale, Toscana *Frankilon* (yarn)
Polyester — Canapale *Frankilene* (yarn)

MONTEFIBRE GROUP:

INDUSTRIE TESSILI VERCELLI S.p.A.
Acetate — Vercelli, Piemonte (yarn)

SOCIETÀ ITALIANA POLIESTERE S.p.A.
Polyester — Acerra, Campania *Terital* (yarn, staple & tow)

SOCIETÀ ITALIANA PRODOTTI ACRILIC S.p.A.
Acrylic — Porto Marghera, Veneto *Leacril* (staple & tow)

NOVACETA S.p.A.
Acetate — Magenta, Lombardia (yarn)

NUOVA RAYON ITALIA S.p.A.
Rayon — Rieti, Lazio (reg yarn)

RADICI FIL S.p.A.
Nylon 6 — Casnigo, Lombardia (yarn)

SETTE STELLE S.p.A.
Nylon 6 — Castelgoffredo, Lombardia (yarn)

SNIA FIBRE S.p.A.
Acrylic — Cesano Maderno, Lombardia, Villacidro, Sardegna *Velicren, Velicren F.R.* (staple & tow)

ITALY (continued)

SNIA FIBRE S.p.A. (continued)

Nylon 6 & 66	Castellaccio, Lazio; Cesano Maderno & Varedo, Lombardia; Villacidro; Napoli, Campania *Coro Lilion Souple, Lilion Styl* (yarn, staple & tow)
Polyester	Napoli *Wistel, Wistel F.R.* (yarn)

SOCIETÀ INDUSTRIALE CREMONESE S.p.A.

Rayon	Pizzighettone, Lombardia (ind yarn)

STERE

Polyester	Cardano al Campo, Lombardia (yarn)

TEXTILE PRODUKTE S.p.A.

Nylon 6	Villa D'Ogna, Lombardia (yarn & staple)

TORCITURA DI BORGOMANERO S.p.A.

Nylon 6	Milano, Lombardia *Borgolon* (yarn)

OLEFIN FIBER

EUROFIL Gandino, Lombardia (P staple)

FILATURA DI DELEBIO S.p.A. Delebio, Lombardia *Delebion* (P yarn)

FILLI FRANA Casnigo, Lombardia (P staple & film)

I.T.S. Legnano, Lombardia (P yarn)

MOPLEFAN (Formerly Himont Italia S.p.A.) Grassobbio, Lombardia *M.R.81* (P yarn), Terni, Umbria *Meraklon* (P yarn & staple)

NOVASAR Caronno Pertusella, Lombardia (P yarn & staple)

POLYMECON Zibido S. Giacomo, Lombardia (P staple & film)

SERGEL Casnigo, Lombardia (P staple & film)

TEXTILE PRODUKTE Villa D'Ogna, Lombardia (P staple)

OLEFIN FILM FIBER, only

CARPET BACKING S.p.A. Ceniga

DE MAGISTRIS EMILIO Bagnolo Cremasco

I.T.P.

LICANA NORD S.p.A. Cassano d'Adda (Milano)

MILANPLAST s.r.l. Milano

MOPLEFAN S.p.A. Milano

NEOFIBRE s.r.l. Lendinara

SACHIM (MUMMOLO) Bari

S.E.A.L. S.p.A. Milano

ITALY (continued)

S.I.S.A.L. S.p.A. Piacenza

STIROSIR S.p.A. Milano

TESSITURA LOMBARDA DI CONSONNI ELIA ALBIATE

TEXTILE GLASS FIBER

VETROTEX ITALIA S.p.A. Besana Brianza, Lombardia (yarn), Fibras Di Rinforzo *VETROTEX*

VITROFIL S.p.A. Vado Ligure, Liguria

JAPAN

ASAHI CHEMICAL INDUSTRY CO., LTD.

Acrylic	Fuji *Cashmilon, Pewlon* (yarn & staple)
Nylon 6/66	Nobeoka & Moriyama *Asahi Kasei Nylon, Leona* (yarn, monofil & spunbonded)
Polyester	Nobeoka & Moriyama *Asahi Kasei Ester* (yarn & spunbonded)
Rayon	Nobeoka (reg & cupra yarn, cupra staple & cupra spunbonded)
Saran	Suzuka (yarn, monofil & staple)
Spandex	Moriyama *Roica*

DAIWABO CO., LTD. •

Rayon	Masuda (staple)

DU PONT-TORAY COMPANY LTD.

Spandex	Shiga *Opelon* (fused multifil)

FUJI SPINNING CO., LTD.

Rayon	Toyo (staple)
Spandex	Kozakai *Fujibo Spandex*

JAPAN EXLAN CO., LTD.

Acrylic	Saidaiji *Exlan* (staple)

KANEBO RAYON, LTD.

Rayon	Hofu (staple)

KANEBO SYNTHETIC FIBERS, LTD.

Acrylic	Hofu *Kanebo Acryl* (staple)
Nylon 6	Hofu *Kanebo Nylon* (yarn)
Polyester	Hofu & Sabae *Kanebo Polyester* (yarn)
Spandex	Hofu *Kanebo Loobell*

KANEGAFUCHI CHEMICAL INDUSTRY CO., LTD.

Modacrylic	Takasago *Kanecaron, Kanekalon* (staple & tow)

KOHJIN CO., LTD.

Polychlal	Yatsushiro *Cordelan* (staple)
Rayon	Yatsushiro (staple)

KURARAY CO., LTD.

Polyester	Saijo & Tamashima *Kuraray Polyester* (yarn & staple)

JAPAN (continued)

KURARAY CO., LTD. (continued)

Rayon	Kurashiki, Saijo & Tamashima *Three Golden Horses* (reg yarn)
Vinal	Okayama *Kuralon* (yarn & staple)

KUREHA CHEMICAL INDUSTRY CO., LTD.

Saran	Mibu *Krehalon* (yarn, monofil & staple)
Vinyon	Mibu *Vicion* (monofil)

MITSUBISHI ACETATE CO., LTD.

Acetate	Toyama (yarn & tow)
Triacetate	Toyama (yarn)

MITSUBISHI RAYON CO., LTD. •

Acrylic	Otake *Finel, Silpalon, Vonnel* (yarn & staple)
Polyester	Toyohashi *Soluna* (yarn), Lunaace (staple)

NIPPON ESTER CO., LTD.(subsidiary of Unitika, Kanebo and Mitsubishi Chemical Industry)

Polyester	Okazaki & Sabae *Kanebo Ester, Unitika Ester* (yarn & staple)

NISSHINBO INDUSTRIES, INC.

Rayon	Tokushima (staple)
Spandex	Tokushima *Mobilon*

NITIVY CO., LTD.

Vinal	Fujieda *Niti-Vilon, Solvron, Vilon* (yarn)

OMIKENSHI CO., LTD.

Rayon	Kakogawa (staple)

TEIJIN LTD.

Aramid	Iwakuni *Teijinconex* (staple)
Nylon 6	Mihara *Teijin Nylon* (yarn)
Polyester	Ehime, Iwakuni, Matsuyama & Tokuyama *Teijin-Tetoron* (yarn & staple)
Vinyon	Iwakuni *Teviron* (yarn)

TEIJIN ACETATE LTD. (subsidiary of Teijin Ltd.)

Acetate	Matsuyama (yarn)

TOHO RAYON CO., LTD.

Acrylic	Mishima *Beslon* (staple & tow)
Rayon	Tokushima *Tovis* (staple)

TORAY INDUSTRIES, INC.

Acrylic	Ehime *Toraylon* (staple)
Nylon 6	Aichi, Ishikawa*, Nagoya, Okazaki & Shiga *Amilan, Toray Nylon* (yarn & staple)
Nylon 6/66 copolymer	Aichi *Tapilon* (yarn)
Nylon 66	Aichi, Ishikawa, Okazaki *Promilan* (yarn)
Polyester	Ehime, Ishikawa, Mishima & Okazaki *Toray Tetoron* (yarn & staple)

TORAY-MONOFILAMENT CO., LTD.

Nylon 6	Okazaki *Toray Nylon* (monofil)

TOYO CHEMICAL CO., LTD.

Vinyon	Ofuna *Envilon* (yarn & monofil)

JAPAN (continued)

TOYOBO CO., LTD. •

Nylon 6	Tsuruga *Toyobo Nylon* (yarn)
Polyester	Iwakuni & Tsuruga *Toyobo Ester* (yarn & staple)
Promix	Tsuruga *Chinon* (yarn)
Rayon	Iwakuni *Tufcel* (staple)
Spandex	Tsuruga *Espa*

TOYOBO PETCORD CO., LTD.

Polyester	Tsuruga *Toyobo Petcord* (yarn)

UNITIKA LTD.

Nylon 6	Uji *Unitika* (yarn, monofil & staple)
Polyester	Okazaki *Marix* (ind yarn & spunbonded)

UNITIKA KASEI CO., LTD.

Vinal	Sakoshi (Akoh City) *Mewlon* (yarn, monofil & staple)

UNITIKA RAYON CO., LTD.

Rayon	Okazaki & Uji (ind & reg yarn)

YOSHIDA KOGYO K.K.

Polyester	Kurobe (yarn)

OLEFIN FIBER

ASAHI CHEMICAL INDUSTRY CO., LTD. Moriyama (P spunbonded)

CHISSO POLYPRO FIBER CO., LTD. Moriyama *Chisso Polypro, ES Fiber* (P yarn & staple)

DAIWABO CO., LTD. Harima *Daiwabo Polypro, NBF Fiber* (E & P staple)

HAGIHARA INDUSTRY CO., LTD. Kurashiki (E monofil & film)

HIRATA SPINNING CO., LTD. Yokkaichi *Hiralon* (E & P yarn & monofil)

INABA SEIKO, LTD. Gamagori (E monofil)

KANEYA SEIKO, LTD. Hokkaido & Kushiro (E & P monofil)

KUREHA CHEMICAL INDUSTRY CO., LTD. Mibu *Kureha Polypropylene* (P monofil)

MARUAI CO., LTD. Toyohashi (E monofil)

MITSUBISHI RAYON CO., LTD. Toyohashi *Mitsubishi Pylen* (P yarn & staple)

NAGANO KAKO CO., LTD. Nagano (E monofil)

SHOWA POLYMER CO., LTD. Ibaraki (E monofil & film)

TAI-RAY CO., LTD. Mito *Danzex, Danzex Lite, Liplon* (E monofil, P yarn & monofil)

TANIYAMA CHEMICAL INDUSTRY CO., LTD. Okayama *Tanikalon* (E monofil)

JAPAN (continued)

TOA WOOL SPINNING & WEAVING CO., LTD. Tomari *Toabo Polypro* (P staple)

TONEN SEKIYUKAGAKU K.K. (TONEN PETROCHEMICAL CO.; LTD.) Kawasaki *Tapyrus* (P spunbonded)

TOYOBO CO., LTD. Iwakuni (P staple)

UBE-NITTO KASEI CO., LTD. Fukuyama & Gifu *Sun Line, Ube-Nitto Polypro* (E monofil & P yarn, monofil & staple)

OLEFIN FIBER, only

DAIDO KASEI Osaka

FUJIMOTO SANGYO Osaka

OKAMOTO CHEMICAL Ehime

SAKAI KASEI Osaka

SANTO CHEMICAL Aichi

SEKISUI CHEMICAL Amagasaki & Nara

SUNREX INDUSTRIES, LTD. Yokkaichi (E monofil & P spunbonded)

TOYAMA Chiba

TOYO SODA Yokkaichi

WAKO SPINNING CO. Gifu

YAMAJIN TEXTILE Fukui

GLASS FIBER

ASAHI FIBER GLASS CO., LTD. Ibaraki & Shonan *Glassion*

ASAHI-SCHWEBEL CO., LTD. Moriyama

CENTRAL GLASSFIBER CO., LTD. Matsusaka

FUJI FIBER GLASS CO. Moka

KANEBO, LTD. Gunma *Textoglass*

NIPPON GLASS FIBER CO., LTD. Ibaraki & Tsu *Micro Glass*

THE NIPPON MINERAL FIBER MFG. CO. Tarui & Yuki *Superfine*

NITTO BOSEKI CO., LTD. Fukushima *Iceberg*

PARAMOUNT GLASS MFG. CO., LTD. Koriyama & Suzuka *Fether Glass*

UNITIKA U.M. GLASS CO., LTD. Kyoto *Unitka U.M.*

KENYA

AFRICA SYNTHETIC FIBER LTD.
Nylon 6 — Thika (yarn)
Polyester — Thika (staple)

JAYDEES LTD.
Polyester — Nairobi (yarn)

KENYA FIBRE CORPORATION LTD.
Polyester — Nanyuki (yarn & staple)

KISUMU COTTON MILL (KICOMI)
Polyester — Kisumu

SUNFLAG LTD.
Polyester — Nairobi (yarn)

OLEFIN FIBER

UNISACK LTD. Thika (P film)

KOREA PEOPLE'S DEMOCRATIC REPUBLIC OF (NORTH)

A number of man-made fiber plants are said to be operating in North Korea (see June 1970 *Organon* issue, page 113); however, no data for this country are recorded in any table of this issue due to lack of reliable information.

KOREA REPUBLIC OF (SOUTH)

CHEIL SYNTHETIC TEXTILES COMPANY
Polyester — Kumi *Eslon* (yarn & staple)

DAEHAN SYNTHETIC FIBER COMPANY
Polyester — Ulsan *Acelan* (yarn & staple)

GORYEO NYLON CORPORATION LTD.
Nylon 6 — Kyungsan Kun *Kolon* (yarn)

HANIL SYNTHETIC FIBER INDUSTRIAL COMPANY
Acrylic — Masan *Hanilon* (staple)

JEIL SYNTHETIC FIBERS COMPANY•
Polyester — Seoul *Oplon* (yarn)

KOHAP, LTD. •
Nylon 6 — Shihung *Palmylon* (yarn & staple)
Polyester — Shihung *Palmylon* (yarn & staple)

KOLON INDUSTRIES INC.
Nylon 6 — Kumi, Taegu *Kolon* (yarn)
Polyester — Kumi *Kolon* (yarn)

SAMYANG COMPANY, LTD.
Polyester — Chunju *Triron* (yarn & staple)

KOREA REPUBLIC OF (SOUTH) (continued)

SUNKYONG FIBRES LTD.
Acetate — Suwon *Sunkyung* (yarn & tow)
Polyester — Suwon & Ulsan *Sunkyong* (yarn & staple)

TAEKWANG INDUSTRIAL COMPANY
Acrylic — Ulsan *Acelan* (staple)
Spandex — Ulsan *Acelan* (yarn)

TONGKOOK FIBRES LTD.
Polyester — Kumi* (yarn)

TONGYANG NYLON COMPANY
Nylon 6 — Anyang & Ulsan *Toplon* (yarn)
Polyester — Ulsan *Toplon* (yarn)

TONGYANG POLYESTER COMPANY
Polyester — Ulsan *Toplon* (yarn)

WONJIN RAYON COMPANY, LTD.
Rayon — Donong *Coray* (reg yarn & staple)

OLEFIN FIBER

JEIL SYNTHETIC FIBERS COMPANY Seoul *Oplene* (P yarn & staple)

KOHAP, LTD. Shihung *Happylon, Pylon* (P staple)

KUMSUNG SYNTHETIC FIBER CO., LTD. Seoul *Hopelon, Polon* (P staple) (idle)

LIBYA

LIBYA NATIONAL OIL CORPORATION (LINOCO)
Nylon 6 — Marsa Al-Brega* (yarn)
Polyester — Marsa Al-Brega* (staple)

LUXEMBOURG

TECHNOFIBRES
Polyester — Mertert (yarn)

Production and capacity data are combined with Belgium and the Netherlands under "Benelux" on page 108 - 109.

OLEFIN FIBER

DU PONT FIBRES S.A. Contern-Hesperange *Typar* (P spunbonded)

MALAYSIA

ACRYLIC TEXTILE OF MALAYSIA SDN. BHD.
Acrylic — Kedah (yarn)

KANEBO MALAYSIAN SPINNING MILLS SDN. BHD.
Acrylic — Prai (yarn)

MALAYSIA (continued)

PENFIBRE SDN. BHD.
Polyester — Penang (staple)

SOUTEX SENDIRIAN BERHAD
Polyester — Batu Pahat (yarn & staple)

TOOTAL THREAD MALACCA SDN. BHD.
Polyester — Malacca (yarn)

MALTA

NYLON KNITTING CO. LTD.
Nylon 6 — Qormi (yarn)

Production and capacity data are combined with Italy.

MEXICO

CELANESE MEXICANA, S.A.
Acetate — Ocotlán, Jalisco (yarn & staple)
Acrylic — Zacapu, Michoacán (staple, tow & tops)
Nylon 6 — Ocotlán & Toluca, México *Duracel, Nycel* (yarn & staple)
Polyester — Ocotlán; Querétaro, Querétaro & Toluca *Crolen* (yarn & staple)

CELULOSA Y DERIVADOS, S.A.
Acrylic — Atequiza, Jalisco *Crysel* (staple, tow & tops)
Rayon — Monterrey, Nuevo León (ind & reg yarn)

FIBRAS QUIMICAS, S.A.
Nylon 6 — Monterrey, Nuevo León *Supernylon Cydsa* (yarn & monofil)
Polyester — Monterrey *Terlenka* (yarn)

FIBRAS SINTETICAS, S.A.
Acrylic — Cotaxtla, Veracruz *Fisisa* (staple, tow & tops)
Nylon 6 — Cotaxtla *Fisisa* (yarn & monofil)
Polyester — Cotaxtla & México *Fisisa* (yarn & staple)

FIBRASOMNI, S.A.*
Nylon 6 — Ixtapalapa, D.F. *Omni-Nylon* (monofil)
Saran — Ixtapalapa *Omni-Saran* (monofil)

FINACRIL, S.A.
Acrylic — Altamira (staple, tow & tops)

INDUSTRIAS PETROQUIMICAS MEXICANAS, S.A.
Polyester — El Salto, Jalisco *Inpetmex* (yarn)

KIMEX S.A.
Nylon 6 — Tlalnepantla, México *Aztecron* (yarn)
Polyester — Tlalnepantla *Kintrel* (yarn)

NYLON DE MEXICO, S.A.
Nylon 6 — La Leona, Nuevo León *Nylfil* (yarn & staple)
Polyester — La Leona *Delcron* (yarn, staple, tow & fiberfill)
Spandex — La Leona *Likra* (fused multifil)

MEXICO (continued)

OLEFIN FIBER

FIBRASOMNI, S.A. Ixtapalapa, D.F. *Politen-Omni* (E monofil), *Polyprop-Omni* (P yarn & monofil)

INDUSTRIAS POLIFIL, S.A. Ixtacuixtla, Tlaxcala *Pliana* (P yarn & staple)

PLASTICOS INDUSTRIALIZADOS, S.A. Monterrey, Nuevo León (P staple)

OLEFIN FILM FIBER, only

HILOS Y CORDELES, S.A. Tlalnepantla, México

PLASTICEL, S.A. Monterrey, Nuevo León (*Plasticel*)

POLISAC, S.A. (affiliate of Nylon de México, S.A.), Guadalajara, Jalisco (*Polisac*)

GLASS FIBER

VITRO-FIBRAS, S.A. Zacatenco, D.F. *Vitro-Fibras*

NETHERLANDS

DU PONT DE NEMOURS (NEDERLAND) N.V.
Spandex — Dordrecht *Lycra* (fused multifil)

ENKA B.V.
Aramid — Arnhem, Emmen *Arenka* (yarn)
Nylon 6 — Emmen *Enka Perlon Enkalon* (yarn)
Polyester — Emmen *Diolen, Terlenka* (yarn & staple)
Rayon — Arnhem (ind yarn) & Ede (reg yarn)

OLEFIN FIBER

LANKHORST TOUWFABRIEKEN B.V. Sneek *Tiptolene* (E monofil & P film)

T.T.C. POLYOLEFINS B.V. Nijverdal (P monofil, film & staple)

N.V. VERTO Rotterdam (P film)

GLASS FIBER

SILENKA B.V. Hoogezand (Groningen) *Silenka*

Cellulosic production and capacity data are combined with Belgium on page 112 - 113. Noncellulosic production and producing capacity data are combined with Belgium and Luxembourg under "Benelux" on page 108 - 109.

NICARAGUA

OLEFIN FIBER

MANUFACTURERA CENTRO AMERICANA S.A. (MACEN) Managua (P film)

NIGERIA

NICHEMTEX INDUSTRIES LTD.
Polyester — Ikorodu, Lagos *Nigerlene* (yarn & staple)

NORWAY

OLEFIN FIBER

A/S PLATON, AVD. TEKSTIL Notodden *Filmtex* (E & P film)

NORFIL-NORPACK A/S Stavern, near Larvik *Akvaflex* (P yarn, E & P monofil & film)

STAL OG TAU Tonsberg *Norseflex* (P film)

GLASS FIBER

NORSK GLASSFIBER A/S Birkeland

PAKISTAN

BENGAL FIBER INDUSTRIES, c/o BENGAL OIL MILLS LIMITED
Nylon 6 — Karachi *Nylpak* (yarn)
Polyester — Karachi (yarn & staple)

DILON LIMITED
Nylon 6 — Landhi *Dilon* (yarn)
Polyester — (yarn*)

GATRON INDUSTRIES LIMITED
Polyester — Hub Chowki (yarn)

HASHWANI GROUP
Polyester — Sind Province (yarn)

ICI PAKISTAN MANUFACTURERS LTD.
Polyester — Lahore *Tere-Pak* (staple)

NATIONAL FIBERS LIMITED
Polyester — Korangi, Karachi (yarn & staple)

NILOM NYLON MILLS LIMITED
Nylon 6 — Lyallpur *Nilom* (yarn & monofil)

PAK FIBRE INDUSTRIES LIMITED
Polyester — Hub Chowki (yarn)

POLYTEX
Polyester — (yarn)

RAVI RAYON LIMITED
Acetate — Kala Shah Kaku, Sheikhupura District *Krasil* (yarn)

RUPALI POLYESTER LIMITED
Polyester — Karachi* (yarn & staple)

S.G. RAYON MILLS LIMITED
Polyester — Karachi (yarn)

PAKISTAN (continued)

SYNTHETIC POLYLON
Polyester — Katri (yarn), Hub Chowki (staple)

PERU

BAYER INDUSTRIAL S.A.
Acrylic — Lima *Dralon* (staple)

FILAMENTOS INDUSTRIALES, S.A.
Nylon 6 — Lima* (yarn)
Polyester — Lima (yarn)

MANUFACTURA NYLON S.A.
Nylon 6 — Vitarte, near Lima (yarn)
Polyester — Vitarte *Diolen* (staple)

MANUFACTURAS DEL SUR S.A.
Nylon 6 — Arequipa *Long Life, Mistilon* (yarn)
Polyester — Arequipa (yarn & staple)

RAYON Y CELANESE PERUANA S.A.
Acetate — Lima (yarn)
Nylon — Lima (staple)
Polyester — Lima *Forcel* (yarn, staple, tow & tops)

RETEX PERUANA, S.A.
Nylon 6 — Ventanilla, Callao (yarn)

OLEFIN FILM FIBER, only

NORSAC S.A. Trujillo

POLICEL DEL PERU S.A. Lima

SACOS DEL SUR S.A. Arequipa

SACOS PISCO S.A. Pisco

PHILIPPINES, REPUBLIC OF THE

FILIPINAS SYNTHETIC FIBER CORPORATION
Polyester — Sta. Rosa, Laguna *Filsyn* (yarn & staple)

LAKEVIEW INDUSTRIAL CORPORATION
Polyester — Carmona, Rizal *Licron* (yarn & staple)

PHILIPPINE POLYAMIDE INDUSTRIAL CORPORATION (PPIC)
Nylon 6 — Calamba, Laguna Philippine Polyamide (yarn) (idle)

TEXFIBER CORPORATION
Nylon 6 — Taytay, Rizal *Texfiber* (yarn)

OLEFIN FIBER

INDUSTRIAL TEXTILE MANUFACTURING CO. (ITEMCOP)
Mandaluyong, Rizal (P film)

PHILIPPINES, REPUBLIC OF THE (continued)

MANILA CORDAGE COMPANY Manila (P film)

POLAND

CHODAKOWSKIE ZAKŁADY WŁOKIEN CHEMICZNYCH "CHEMITEX"
Rayon — Sochaczew (reg yarn)

WROCŁAWSKIE ZAKŁADY WŁOKIEN CHEMICZNYCH "CHEMITEX"
Rayon — Wrocław (reg yarn)

ZAKŁADY WŁOKIEN CHEMICZNYCH "CHEMITEX-ANILANA"
Acrylic — Łódź *Anilana* (staple)
Azlon — Łódź *Wipolan* (staple, casein base)

ZAKŁADY WŁOKIEN CHEMICZNYCH "CHEMITEX-CELWISKOZA"
Polyester — Jelenia Góra *Elana* (staple)
Rayon — Jelenia Góra (staple)
Spandex — Jelenia Góra (pilot plant) *Elaston* (yarn)

ZAKŁADY WŁOKIEN CHEMICZNYCH "ELANA"
Polyester — Torun, Bydgoszcz *Torlen* (yarn), *Elana* (staple)

ZAKŁADY WŁOKIEN CHEMICZNYCH "STILON"
Nylon 6 — Gorzów Wielkopolski *Lanastil, Stilon* (yarn), *Polana* (staple)

ZAKŁADY WŁOKIEN CHEMICZNYCH "CHEMITEX-WISKORD" •
Rayon — Szczecin-Zydowce (reg yarn)

ZAKŁADY WŁOKIEN CHEMICZNYCH "CHEMITEX-WISTOM"
Rayon — Tomaszów Mazowiecki, Łódz (ind & reg yarn & staple)

OLEFIN FIBER

ZAKŁADY PRZEMYSŁU LNIARSKIEGO LENKO Bielsko-Biala (P film)

ZAKŁADY PRZEMYSŁU LNIARSKIEGO SKARBKOW Mirsk, Wrocław (P staple)

ZAKŁADY WŁOKIEN CHEMICZNYCH "CHEMITEX-WISKORD" Szczecin-Zydowce (P staple)

GLASS FIBER

KROSNIENSKIE HUTY SZKLA Krosno

ZAKŁADY WŁOKIEN CHEMICZNYCH "CHEMITEX-ANILANA" Łódz *Polsilon*

PORTUGAL

COMPANHIA INDUSTRIAL DE FIBRAS ARTIFICIAIS (CIFA), S.A.R.L.
Nylon 6 — Sobrado, Valongo *Cifalon* (yarn)
Rayon — Sobrado (reg yarn & staple)

FIBRAS SINTÉTICAS DE PORTUGAL, S.A.R.L. (FISIPE)
Acrylic — Lisbon *Vonnel* (staple, tow & tops)

FINICISA - FIBRAS SINTÉTICAS, S.A.R.L.
Polyester — Portalegre, Alto Alentejo *Terylene* (staple)

TÊXTIL ARTIFICIAL DO PORTO, LDA.
Rayon — Porto (reg yarn)

OLEFIN FIBER

ALICATIFAS DA LOUSA (P staple)

FERCOL (P staple)

LUSOTUFO (P staple)

QUIMIGAL - QUIMICA DE PORTUGAL, E.P. Barreiro (P staple & film)

OLEFIN FILM FIBER, only

CERFIL Maia - Douro

CORDEX - COMPANHIA INDUSTRIAL TEXTIL, S.A.R.L. Esmoriz

COTESI - COMPANHIA DE TEXTEIS SINTÉTICOS S.A.R.L. Carvalhos

EUROFIL - INDUSTRIAS DE PETROLEOS PLASTICOS E FILAMENTOS, S.A.R.L. Lisbon

FÁBRICA DE TAPETES VITÓRIA Mira d'Aire

FERNANDES & COSTA, LDA. Seia

MANUEL RODRIGUES DE LIMA & FILHOS Cortegaca

MANUEL RODRIGUES D'OLIVEIRA, S.A. LDA. M. Maia

QUINTAS & QUINTAS Povoa de Varzim

SICOR - SOCIEDADE INDUSTRIAL DE CORDOARIA S.A.R.L. Cortegaca

GLASS FIBER

QUIMIGAL - QUIMICA DE PORTUGAL, E.P. • Barreiro

ROMANIA

COMBINATUL DE FIBRE ARTIFICIALE
Rayon — Braila, Dej* & Suceava* (ind yarn & staple)
Polyester — Vaslui (yarn)

ROMANIA (continued)

FABRICA DE FIBRE ARTIFICIALE "VISCOFIL"
Rayon — Popesti-Leordeni, near Bucuresti (reg yarn)

FABRICA DE FIBRE ARTIFICIALE "VISCOZA"
Rayon — Lupeni (reg yarn)

UZINA DE FIBRE SINTETICE IASI
Polyester — Iasi *Teron* (yarn, staple, tow & tops)

UZINA DE FIBRE SINTETICE SAVINESTI
Acrylic — Savinesti, near Piatra Neamt (Bacau Region) *Melana* (staple & tops)
Nylon 6 — Savinesti *Relon* (yarn & staple)

SOUTH AFRICA, REPUBLIC OF

CONSOLIDATED TEXTILE MILLS (part of Frame Group of Companies)
Polyester — Jacobs, Natal (yarn & staple - captive)

HOECHST SOUTH AFRICA (PTY.) LTD.
Polyester — Milnerton, Cape Province *Trevira* (staple)

SOUTH AFRICAN NYLON SPINNERS (PTY.) LIMITED
Nylon 66 — Bellville, Cape Province *Bri-Nylon* (yarn)
Polyester — Bellville & Hammarsdale, Natal *Terylene* (yarn)

OLEFIN FIBER

ROMATEX MILLS Jacobs, Natal (P film)

SPAIN

BRILEN S.A.
Polyester — Barbastro, Huesca & Igualada, Barcelona (yarn & staple)

COURTAULDS FIBRES S.A.
Acrylic — Prat de Llobregat, Barcelona *Crilenka* (staple & tow)

DE FIBER S.A.
Nylon 66 — Vendrell, Tarragona

INDUSTRIAS DEL ACETATO DE CELULOSA, S.A. (INACSA)
Acetate — La Batlloria, Barcelona (yarn)

INDUSTRIAS QUIMICAS TEXTILES S.A. (INQUITEX)
Nylon 6 — Andoain, Guipuzcoa *Carbyl, Nylhair, Trinyl* (yarn & staple)

LA SEDA DE BARCELONA, S.A.
Nylon 6 — Alcalá de Henares, Madrid *Dayan, Enkalon* (yarn & staple)
Polyester — Prat de Llobregat, Barcelona *Terlenka* (yarn & staple)
Rayon — Prat de Llobregat (ind & reg yarn)

SPAIN (continued)

MONTEFIBRE HISPAÑIA S.A.
Acrylic — Miranda de Ebro, Burgos *Leacril* (staple)

NUREL S.A.
Nylon 6 — Záragoza, Záragoza *Nurel* (yarn)
Polyester — Záragoza *Terylene* (yarn & staple)

SOCIEDAD ANONIMA DE FIBRAS ARTIFICIALES (SAFA)
Nylon 66 — Blanes & San Julian de Ramis, Gerona *SAFA* (yarn & staple)
Polyester — Blanes *Tergal, Teriber* (yarn & staple)

SOCIEDAD NACIONAL DE INDUSTRIAS APLICACIONES CELULOSA ESPAÑOLA, S.A. (SNIACE)
Nylon 6 — Torrelavega, Santander *Lilion* (yarn & staple)
Rayon — Torrelavega (staple)

OLEFIN FIBER

PAULAR, S.A. - EMPRESA PARA LA INDUSTRIA QUIMICA
Puertollano, C.R. *Istrakin* (P monofil & film)

PROFILEX (P staple)

PROPILAN (P staple)

SERINA TEXTIL (P staple)

SOCIEDAD ANONIMA ITALO ESPAÑOLA (SAITES) Sabadell, Barcelona (P staple & film)

TEXTILE ARMENGOL Bruch, Barcelona (P staple & film)

OLEFIN FILM FIBER, only

CONDEROLS S.A. Granada

CORDELERIAS BARAS S.A. Gijon, Asturias

CORDELERIAS MAR S.A. Vigo, Pontevedra

HILATURAS Y CORDELERIA S.A. - "HILCOSA" Barcelona

HIRESA Callosa de Segura, Alicante

YUTE INDUSTRIAL S.A. Valéncia

GLASS FIBER

CRISTALERIA ESPAÑOLA - DIVISION FIBRA DE REFUERZO
Alcalá de Henares, Madrid *Fibra de Refuerzo VETROTEX*

SRI LANKA

CEYLON PETROCHEMICAL CORPORATION
Nylon 6 — Sapugaskan (yarn & monofil)

SWEDEN

SONESSON PLAST AB •
Nylon 6/66 — Malmö (monofil)

SVENSKA RAYON AKTIEBOLAGET
Rayon — Alvenäs, Valberg (reg yarn & staple)

OLEFIN FIBER

SONESSON PLAST AB Malmö *Laveten* (E & P monofil)

GLASS FIBER

SCANDINAVIAN GLASFIBER AKTIEBOLAG Falkenberg

SWITZERLAND

EMS INDUSTRIES, LTD.
Nylon 6 — Ems, Graubünden *Grilon* (staple)
Polyester — Domat/Ems *Grilene* (staple)

NOYFIL S.A.
Nylon 6 — Stabio (yarn)
Polyester — Stabio (yarn)

VISCOSUISSE A.G.
Nylon 6/66 — Emmenbruecke, Luzern & Widnau, St. Gallen *Nylsuisse, Flixor* (yarn & staple)
Polyester — Widnau *Tersuisse* (yarn)

OLEFIN FILM FIBER, only

AROVA SCHAFFHAUSEN A.G. Schaffhausen

VOGT & CO. Reinach

TAIWAN

BAN SHIN FIBER CO., LTD.
Nylon 6 — Kaohsiung *Sun & Colorful Seal* (yarn)

CENTURY EVERGREEN CORP.
Polyester — Tainan *Centuron* (yarn)

CHENTA CHEMICAL INDUSTRIAL CORPORATION
Nylon 6 — Kaohsiung *Rabbit* (yarn)

CHI YURN FIBER MILLS
Nylon — Tao Yuan (staple)

CHINA MAN-MADE FIBER CORPORATION
Rayon — Tou Fen *Queen* (reg yarn & staple)

CHUNG SHING TEXTILE CO., LTD.
Nylon 6 — Tao Yuan *Tasinlon, Threegun* (yarn)
Polyester — Tao Yuan *Tasinlon* (yarn & staple)

FAR EASTERN LTD.
Polyester — Hsin Chu *Eastlene, Eastlon* (yarn & staple)

TAIWAN (continued)

FORMOSA CHEMICALS & FIBER CORPORATION
(part of Formosa Plastics Group)
Nylon 6 — Chang Hwa *Sunylon* (yarn)
Rayon — Chang Hwa *Tarsiyon* (reg yarn & staple)

FORMOSA PLASTIC CORPORATION - Tairylan Plant
(part of Formosa Plastics Group)
Acrylic — Kaohsiung & Lanchu *Tairylan* (staple, tow & tops)

FUPONT SYNTHETIC INDUSTRIAL CO.
Nylon 6 — Tao Yuan *Full-long* (yarn)

HUALON CORPORATION
Nylon 6 — Chungho, Tao Yuan & Tou Fen (yarn)
Polyester — Chungho, Tou Fen & Yim Kao *Hualon* (yarn & staple)

HUNG CHOU CHEMICAL INDUSTRY COMPANY, LTD.
Polyester — Kwei Shan *Hunvira* (yarn)

JANG DAH NYLON INDUSTRIAL CORP., LTD.
Nylon 6 — Hsin Tien *Yuan Pao* (yarn)

NAN-YA PLASTIC CO., POLYESTER FIBER DIVISION (part of Formosa Plastics Group)
Polyester — Tai Shan *Tairilin* (yarn & staple)

SAN YUAN HSING ENTERPRISE COMPANY
Nylon 6 — Kaosiung (monofil - captive)

SHINKONG SYNTHETIC FIBERS CORPORATION
Polyester — Tao Yuan *Shinlon* (yarn & staple)

SYNTHETIC FIBER MILLS CORPORATION
Nylon 6 — Tao Yuan *Synlon* (yarn)

TA MING FIBERS INDUSTRIAL CORPORATION
Nylon 6 — Tao Yuan *Ta Ming Nylon* (yarn)
Polyester — Tao Yuan *Poylon* (yarn)

TAINAN SPINNING CO., LTD.
Polyester — Tainan *Nanlon* (yarn)

TONG HWA SYNTHETIC FIBER CO., LTD.
Acrylic — Chu Pei *Townflower* (staple & tow)

TUNG HO SPINNING WEAVING & DYEING CO., LTD.
Polyester — Tainan *Pearlylene* (staple)

TUNTEX DISTINCT CORP.
Polyester — Hsin Su *Tuntex* (yarn)

UNITED SYNTHETIC FIBERS CORPORATION
Polyester — Tao Yuan *King Long* (staple)

VANLON FIBERS INDUSTRIAL CORPORATION
Nylon 6 — Tao Yuan *Vanlon* (yarn)
Polyester — Tao Yuan *Vanlon* (yarn)

YU HO FIBER INDUSTRIAL CORPORATION
Polyester — Tao Yuan *Luxlen* (yarn)

TAIWAN (continued)

OLEFIN FIBER

CHIA YANG INDUSTRIAL CO., LTD. Hsi-Chih (P monofil)

CHIEN SUN PLASTIC INDUSTRIAL CO., LTD. Hsin-Chu (E & P film)

CHINA FOLEX CORPORATION Shih-Lin (E & P monofil)

CHUNG KUANG PLASTIC CO., LTD. Chang-Hua (E & P film)

FULLMARK INDUSTRIAL CO., LTD. Hsin-Chu (E & P monofil)

FUU WON CHEMICAL INDUSTRIAL CO., LTD. Tu-Chen (P yarn)

HSIEH CHIN FISHING NET COMPANY, LTD. Kaohsiung *Hsieh Chin* (E monofil - captive)

HUNG FENG ENTERPRISE CO., LTD. Yang-Mei (P monofil)

IEN YI FIBER INDUSTRIAL CO., LTD. Chi-Do Goble (E monofil)

JUI I CHEMICAL INDUSTRIAL CO., LTD. Tou-Yuan (E & P monofil)

KUO HSIANG ENTERPRISE CO., LTD. Yang-Mei (E & P monofil)

LIEN FU CHEMICAL COMPANY LTD. Tou-Fen (E & P monofil)

MEI LON FIBER CO., LTD. Chang-Hua (E monofil)

PAO TSUNG TAI INDUSTRIAL COMPANY LTD. Tainan (P film)

POLON FIBER INDUSTRIAL CO., LTD. Chung-Li (P monofil)

SAN YANG INDUSTRIAL COMPANY LTD. Nei Hu Hsiang (P film)

TAI YEE CHEMICAL INDUSTRIAL CO., LTD. Chung-Li (E & P monofil)

UNITED FIBER INDUSTRIAL CO., LTD. Chung-Li (E & P monofil)

YAO CHENG PLASTIC CO., LTD. Pan-Chiao (P yarn)

TANZANIA

SUN FLAG TEXTILE KNITWEAR MILLS LTD.
Polyester — Arusha (yarn)

THAILAND

ASIA FIBER CO., LTD.
Nylon 6 — Samut Prakarn *AFC* (yarn)

HANTEX CORPORATION LTD.
Nylon 6 — Mahacha, Samut Sakorn (yarn)

THAILAND (continued)

ORIENTAL FIBRE
Polyester — Samut Sakorn (yarn)

TEIJIN POLYESTER (THAILAND) LTD.
Polyester — Pathumthani, Bangkok *TEIJIN TETORON* (yarn & staple)

THAI MELON POLYESTER CO. LTD.
Polyester — Pathumthani, Bangkok (yarn & staple)

THAI RAYON CO., LTD.
Rayon — Ang Thong (staple)

TORAY NYLON THAI COMPANY
Nylon 6 — Bangkhen, Bangkok *TNT* (yarn & monofil)
Polyester — Bangkhen *TNT* (yarn)

TURKEY

AKRILIK KIMYA SANAYII A.S. (AKSA)
Acrylic — Yalova *Aksa* (staple)

FILAMENT SENTETIK IPLIK VE ELYAF SANAYII A.S.
Polyester — Bursa *Filament* (yarn & staple)

GEMLIK SUNI IPEK VE VISKOZ MAMULLERI SANAYII MÜESSESESI (GEMLIK ARTIFICIAL SILK & VISCOSE PRODUCTS INDUSTRY) (Operated by the Sumerbank)
Rayon — Gemlik (yarn & staple)

INSA ISTANBUL NAYLON SANAYII A.S.
Nylon 6 — Istanbul *Islon* (yarn)
Polyester — Istanbul (yarn)

M.N. SABUNCU
Polyester — Adana *MNS* (yarn) (idle)

NERGIS A.S.
Polyester — Bursa (yarn)

POLYLEN SENTETIK IPLIK SANAYII A.S.
Polyester — Bursa *Polylene* (yarn)

SANCAK TÜL SANAYII LTD., STI.
Polyester — Istanbul *Lalelen* (yarn) (idle)

SASA SUNI VE SENTETIK ELYAF SANAYII A.S.
Polyester — Adana *Perilon* (yarn & staple)

SENTETIK IPLIK FABRIKALARI, A.S. (SIFAS) (SYNTHETIC YARN FACTORIES CORPORATION)
Nylon 6 — Bursa *SIFAS* (yarn & staple)
Nylon 66 — Bursa (yarn)
Polyester — Bursa (yarn & staple)

SISAS
Polyester — Canakkale* (yarn)

TEKSTIPLIK SANAYII VE TICARET A.S.
Nylon 6 — Edirne *Dimlon* (yarn)

TURKEY (continued)

YALOVA ELYAF VE IPLIK SANAYII VE TICARET A.S.
Acrylic — Yalova *Yalova* (staple & tow)
Modacrylic — Yalova *Yalova* (staple & tow)

OLEFIN FIBER

BEZCI ELYAF SANAYII A.S. Istanbul

DINARSU ELYAF SANAYII A.S. Cerkezkoy, Tekirdag (P staple)

ELSAN ELYAF SANAYII VE TICARET A.S. Istanbul (P staple)

HALICIOGLU ELYAF SANAYII A.S. Haskoy, Istanbul (P staple)

SESAS ELYAF SANAYII A.S. Istanbul

GLASS FIBER

CAM ELYAF SANAYII A.S. Cayirova-Gebze (Izmit)

UNION OF SOVIET SOCIALIST REPUBLICS

RAYON PLANTS reported at:
Balakovo, Barnaul, Cherkassy (Ukraine), Kalinin, Kamensk, Kiev, Klin, Krasnoyarsk, Leningrad, Mogilev, Ryazan, Saratov, Sokol, Sverdlovsk and Svetlogorsk.
ACETATE PLANTS reported at:
Engels, Fergana, Kaunas, Kirovakan and Moscow.
NYLON PLANTS reported at:
Barnaul, Chernigov, Daughavpils, Engels, Grodno, Kemerovo, Kiev, Klin, Leningrad, Rustavi, Shchekino and Zhitomer.
NONCELLULOSIC FIBER PLANTS reported at:
Kursk (polyester), Blagoveshchensk (polyester*), Kustanay (vinyon), Minsk (polyester), Mogilev (polyester), Navoi, Polotsk and Saratov(acrylic+modacrylic), Svetlogorski (polyester).
GLASS FIBER PLANTS reported at:
Astrakhan, Kalinin, Khabarovsk, Leningrad, Mingechaur, Moscow, Polotsk, Salavat, Saratov, Sevan and Severodonetsk.

UNITED KINGDOM

COURTAULDS FIBRES LTD.
Acrylic — Grimsby, Lincolnshire *Courtelle* (staple & tow)
Modacrylic — Coventry, West Midlands *Teklan* (staple & tow)
Rayon — Grimsby (staple & tow)
Acetate — Coventry; Spondon, Derbyshire *Dicel* (yarn, staple & tow)
Triacetate — Coventry & Spondon *Tricel* (yarn & staple)

DEAN DOVE LTD.
Polyester — Stanley, Durham (yarn)

DU PONT (U.K.) LTD.
Spandex — Maydown, Londonderry, N. Ireland *Lycra* (fused multifil)

ECTONA FIBRES LTD.
Acetate — Siddick, Workington (cigarette tow)

UNITED KINGDOM (continued)

HOECHST FIBRE INDUSTRIES U.K. LTD.

Polyester	Limavady, Londonderry, N. Ireland *Trevira* (yarn & monofil)

ICI FIBRES (a division of Imperial Chemical Industries PLC)

Biconstituent	Pontypool, Gwent , Wales; Workington; Cumbria *Cambrelle, Floratex, Terram* (melded fabrics)
Nylon 66	Doncaster, Yorkshire; Gloucester, Gloucestershire; & Pontypool *Bri-Nylon, Counterstat, Limbaki, Pavanne, Qazul, Quintesse,Tactel,Timbrelle* (yarn, staple & tow)
Polyester	Pontypool & Wilton, Yorkshire *Limbaki, Mitrelle, Terinda, Terylene* (yarn, staple & tow)

NYMOFIL PLC

Nylon 6 & 66	Poulton-le-Fylde, Lancashire (monofil)
Polyester	Poulton-le-Fylde (monofil)

PERI-LUSTA PLC

Nylon 6/66	Leek, Staffordshire (monofil)

OLEFIN FIBER

BELFAST ROPEWORK CO. PLC Belfast, N. Ireland *Bluebell* (E & P monofil, P yarn, staple & film)

CROMPTON AND BROTHERS Bury, Lancashire (P staple)

DON FIBRES PLC Forfar, Angus, Scotland (P yarn, monofil, staple & film)

F. DRAKE (FIBRES) LTD Golcar, Huddersfield, Yorkshire *Gymlene* (P staple)

F. DRAKE & CO. OF GOLCAR LTD. Golcar, Huddersfield (P yarn)

FLEMING'S ROPE & TWINES (WOOLSTON) PLC Warrington, Lancashire (P monofil)

HALL'S BARTON ROPERY LTD. Hull, Yorkshire (P film and E & P monofil)

THE HAWKINS AND TIPSON GROUP Hailsham, East Sussex (P staple & film)

McCLEERY L'AMIE GROUP PLC Belfast, N. Ireland (P yarn)

PLASTICISERS LTD. Drighlington, Yorkshire *Drylene* (E monofil); *Charisma, Duron, Fibrite, Tritor* (P yarn, monofil, film & staple)

POLYOLEFINE FIBRES & ENGINEERING LTD. Bradford, Yorkshire *Downspun* (P staple)

SAMSON YARNS Saintfield, N. Ireland (P yarn)

OLEFIN FILM FIBER, only

AGRIPAC (DUNDEE) LTD. Dundee, Angus, Scotland

UNITED KINGDOM (continued)

AMOCO FABRICS & FIBERS CO., DIVISION OF AMOCO (U.K.) PLC Consett, Durham

BONAR TEXTILES Dundee, Angus, Scotland

BRIDON FIBRES & PLASTICS LTD. Gateshead & Sunderland, Durham & Wallsend, Northumberland *Broplene, Red Star, Viking*

POLYTAPE PLC Dundee, Angus, Scotland *Propafil, Propatape*

ROKO CONTAINERS LTD. Nottingham

ROTHES PLASTICS PLC Glenrothes, Fife, Scotland

SCOTT & FYFE LTD. Tayport, Fife, Scotland

SMITH & NEPHEW TEXTILES LTD. Newhey, near Rochdale, Lancashire *Polyweave*

SYNTHETIC INDUSTRIES (IRELAND) LTD. Newry, Down, N. Ireland

TALBOT WEAVING CO. LTD. (Subsidiary of Courtaulds PLC) Chorley, Lancashire

GLASS FIBER

FIBREGLASS PLC (Subsidiary of Pilkington Brothers PLC) Wrexham, Clwyd, Wales *Fibreglass*

T GLASS FIBRES PLC Camberley, Surrey & Hindley Green, Lancashire

FIBREGLASS-REGINA, a joint venture of FIBREGLASS PLC and the BBA GROUP PLC, is producing textile glass tissue (voile) at Liversedge and St. Helens, Merseyside.

UNITED STATES OF AMERICA

ALBANY INTERNATIONAL - MONOFILAMENT PLANT •

Fluoro	Homer, NY *Halar, Kynar, Teflon, Tefzel* (monofil)
Nylon 6, 66 & 612	Homer (monofil)
Polyester	Homer (monofil - regular & hydrolysis-resistant)

ALLIED/SIGNAL FIBERS DIVISION •

Nylon 6	Columbia, SC & Chesterfield, VA *A.C.E., Anso, Anso-IV, Anso IV HP, Anso-Tex, AnsoV Worry-Free, Anso X, Capima, Caprolan, Caprolan 2000, Caprolan 2000 Sea Gard, Captiva, Compet, Creme De Captiva, Hydrofil, Patina, TEC* (yarn, monofil & staple)
Polyester	Moncure, NC *A.C.E., Compet* (yarn & monofil)

AMERICAN CYANAMID COMPANY, FIBERS DIVISION

Acrylic	Milton, FL *Creslan* (staple & tow)

UNITED STATES OF AMERICA (continued)

AMETEK INC., SPECIAL FILAMENTS DIVISION •

Nylon 6, 66, 612 & 11	Odenton, MD (monofil)
Polyester	Odenton (monofil)
Saran	Odenton (monofil)

AVTEX FIBERS INC. •

Polyester	Lewistown, PA *Avlin* (yarn)
Rayon	Front Royal, VA (ind yarn & staple)

BASF CORPORATION FIBERS DIVISION

Acrylic	Williamsburg, VA *Zefran, Zefkrome* (staple)
Nylon 6	Enka, NC, Anderson & Central, SC and Lowland, TN *Crepeset, Vivana, Zefsport, Zeftron, Zeftron 500,* (yarn & staple)
Polyester	Lowland *Golden Glow, Golden Touch, Silky Touch, Strialine, Ultra Touch* (yarn)
Rayon	Lowland *Zanaire™, Zankare, Zankrome™, Zantrel* (staple)

BERKLEY & CO., INC. •

Nylon 6	Spirit Lake, IA (monofil)

CAMAC CORPORATION •

Nylon 6	Bristol, VA *Camalon* (yarn)

CELANESE FIBERS, INC.

Acetate	Rock Hill, SC Celriver & Narrows, VA (Celco) (yarn, staple & tow)
Polyester	Fayetteville, Salisbury & Shelby, NC and Darlington & Greenville, SC *Angelette, Ceylon, Comfort Fiber, ESP, Fortrel, Loftguard, PolarGuard, Serene, Superba* (yarn, staple, tow & fiberfill)
PBI	Rock Hill (staple)

COLOR-FI, INC.

Nylon	Sumther & Trenton, SC (staple & tow)
Polyester	Sumther & Trenton (staple & tow)

CORTLAND LINE COMPANY

Nylon 6	Cortland, NY (monofil - captive)

COURTAULDS NORTH AMERICA INC.

Nylon 6	Le Moyne, Mobile County, AL *Courtaulds, Shareen* (yarn & monofil)
Rayon	Le Moyne (staple)

E.I. DU PONT DE NEMOURS & COMPANY (INC.) •

FABRICATED PRODUCTS DEPARTMENT

Nylon 6, 66, 612 & Polyester	Parkersburg, WV *Dacron, Dymetrol, Tynex, Vylor* (monofil of 0.002 in. diameter and greater)

TEXTILE FIBERS DEPARTMENT •

Acrylic	Camden, SC & Waynesboro, VA *Orlon* (staple & tow)
Aramid	Richmond, VA *Kevlar* (yarn), *Nomex* (yarn, staple & tow)

UNITED STATES OF AMERICA (continued)

TEXTILE FIBERS DEPARTMENT (continued) •

Nylon 66	Seaford, DE, Camden, SC, Chattanooga, TN and Martinsville, Richmond & Waynesboro, VA *Antron, Cantrece, Cordura, Du Pont, Hyten , Supplex* (yarn, monofil, staple & tow)
Polyester	Kinston & Wilmington, NC, Camden & Charleston, SC and Chattanooga & Old Hickory, TN *Dacron, Hollofil* (yarn, staple, tow & fiberfill), *Sontara* (spunlaced)
Spandex	Waynesboro *Lycra* (fused multifill or coalesced monofil)

EASTMAN KODAK COMPANY - TENNESSEE EASTMAN COMPANY

Acetate	Kingsport, TN (yarn)
Polyester	Kingsport, TN *Kodel* (yarn & staple)

CAROLINA EASTMAN COMPANY

Polyester	Columbia, SC *Kodel* (yarn & staple)

FIBER INDUSTRIES, INC. - See Celanese Fibers

FIRESTONE FIBERS & TEXTILES COMPANY, DIVISION OF FIRESTONE TIRE & RUBBER COMPANY

Polyester	Hopewell, VA (yarn)

FOSS MANUFACTURING CO., INC. •

Polyester	Haverhill, MA (staple - captive)

GLOBE MANUFACTURING CO.

Spandex	Fall River, MA & Gastonia, NC *Cleerspan, DC-$_{100}$ DC-$_{700}$ Glospan* (fused multifil)

THE GOODYEAR TIRE & RUBBER COMPANY, CHEMICAL DIVISION

Polyester	Scottsboro, AL & Point Pleasant, WV (yarn - captive)

GUILFORD MILLS, GAINESVILLE DIVISION

Nylon 6	Gainesville, GA (yarn & monofil - captive)

HANOVER MILLS, INCORPORATED (subsidiary of Falk Fibers & Fabrics, Inc.)

Nylon 6	Yanceyville, NC *Hanover* (yarn & monofil)

HOECHST CELANESE CORPORATION

Polyester	Spartanburg, SC *Trevira* (yarn, monofil, staple & spunbonded)

JOHNSON FILAMENTS, INC. • (subsidiary of JWI Ltd.)

Nylon 6/66	Williston, VT (monofil)
Polyester	Williston (monofil)

KAYSER-ROTH HOSIERY INC. YARN PROCESSING DIVISION

Nylon 66	Creedmoor, NC (yarn - captive)

MKS COMPANY

Polyester	Elizabethton, TN (staple)

UNITED STATES OF AMERICA (continued)

MONOFILAMENTS, INC.
Nylon 6/66 — Waynesboro, VA (monofil)
Polycarbonate — Waynesboro (monofil)
Polyester — Waynesboro (monofil)

MONSANTO COMPANY
MONSANTO FIBERS AND INTERMEDIATES CO.
Acrylic — Decatur, AL *Acrilan, Bi-Loft, Fi-Lana, Fondelle, Pa-Cel, Remember, So-Lara* (staple & tow)
Modacrylic — Decatur *SEF* (staple & tow)
Nylon 66 — Pensacola, FL & Greenwood, SC *Ultron* (yarn, monofil & staple)

MONSANTO PLASTICS AND POLYMERS COMPANY
Nylon 66 — Pensacola *Astro Turf* (recreational & land scaping surfaces)

NORTH AMERICAN RAYON CORPORATION
Rayon — Elizabethton, TN (ind & reg yarn & tow)

SHAKESPEARE MONOFILAMENT DIVISION •
Nylon 6/66 & 610 — Columbia, SC (monofil)
Polyester — Columbia (monofil)

STAR FIBERS, INC.
Nylon 6 — Edgefield, SC *Starbrite* (staple)

SUNSHINE CORDAGE CORPORATION •
Nylon 6 — Miami, FL *Sunylon* (yarn)

TOLARAM FIBERS, INC.
Polyester — Ansonville & Asheboro, NC (yarn)

UNIVERSAL POLYMER PRODUCTS CORPORATION
(subsidiary of Falk Fibers & Fabrics, Inc.)
Polyester — Fuquay-Varina, NC (yarn & monofil)

WELLMAN, INC., MAN-MADE FIBER DIVISION
Nylon 6 & 66 — Johnsonville, SC *Wellon, Wellstrand* (staple, tow & tops)
Polyester — Johnsonville *Fillwell, Wellene, Wellstrand* (staple & tow)

YKK ZIPPER CO.
Polyester — Macon, GA (yarn)

OLEFIN FIBER

ACS INDUSTRIES, INC. Woonsocket, RI (P yarn & multifill)

ALADDIN MILLS, INC. Dalton, GA (P yarn)

ALBANY INTERNATIONAL - MONOFILAMENT PLANT Homer, NY (P monofil)

ALLIED/SIGNAL, FIBERS DIVISION Chesterfield, VA *Spectra-900, Spectra-1000* (E yarn)

AMERICAN MANUFACTURING COMPANY
LAFAYETTE ROPE DIVISION Lafayette, LA *Amco, American, Bondtie, Floterope* (E & P monofil)

UNITED STATES OF AMERICA (continued)

AMERICAN POLYCRAFT Dalton, GA (P yarn & film)

AMETEK INC., SPECIAL FILAMENTS DIVISION Odenton, Md (E & P monofil)

AMOCO FABRICS & FIBERS COMPANY Andalusia & Roanoke, AL, Bainbridge, Hazlehurst & Nashville, GA, Salisbury, NC & Afton, VA *Amoveve, Condesa, Marquésa Lana, Patlon, Patlon Plus, Propex III, Sonatex, Synera* (P yarn, monofil, film & staple)

ARLIN MFG. CO., INC. Lowell, MA (P film)

ARMSTRONG WORLD INDUSTRIES, INC. Charlotte, NC (P film - captive)

AVTEX FIBERS INC. Front Royal, VA (P staple)

BEAULIEU OF AMERICA Dalton, GA (P yarn)

BERKLEY & CO. INC. Spirit Lake, IA (E & P monofil - captive)

BLUE MOUNTAIN EXTRUSIONS Anniston, AL *Gold Medal, Poly Autotwine, Poly Macramé, Polylasting, TY-EZ Polytape, Tylon, Tytite* (E & P film)

BRIDON CORDAGE INC. Albert Lea, MN (P film)

BURLINGTON, INC. Greensboro, NC (P yarn)

CAMAC CORPORATION Bristol, VA (P yarn)

CHASE BAG COMPANY Portland, OR (P film & industrial goods)

CIRTEX Dalton, GA (P film)

COLUMBIAN ROPE COMPANY Guntown, MS *Polypro 6* (E & P monofil & film)

CONCORDE FIBERS, INC. Jamestown, SC (P yarn)

CROWE ROPE COMPANY Warren, ME *Crowelon* (P monofil & film)

CUMBERLAND MILLS, INC. Dalton, GA (P yarn)

CUTLASS CARPET CO. Dalton, GA (P yarn)

DIAMOND MILLS, INC. Eton, GA (P yarn & film)

DORSETT CARPET MILLS INC. Chatsworth, GA (P yarn)

E.I. DU PONT DE NEMOURS & COMPANY (INC.), TEXTILE FIBERS DEPT. Richmond, VA *Tyvek* (E spunbonded)

ELIZABETH WEBBING MILLS CO., INC. Central Falls, RI (P yarn & film)

ENSIGN-BICKFORD INDUSTRIES, INC., FILM FIBERS DIVISION Simsbury, CT (P film)

EXXON CHEMICAL AMERICAS, INDUSTRIAL TEXTILES DIVISION Kingman, KS & Summerville, SC (P monofil & film)

UNITED STATES OF AMERICA (continued)

FIBERS & FABRICS OF GEORGIA, INC. (subsidiary of Georgia Synthetics, Inc.) Elberton, GA (E & P yarn, monofil & multifil)

FIBRES SOUTH, INC. Trussville, AL *Polystar, Trustite, Tyrite* (P film, monofil & staple)

FILAMENT FIBER TECHNOLOGY INCORPORATED Lakewood, NJ (P yarn)

FNT INDUSTRIES INC. Menominee, MI (E monofil)

FOSS MANUFACTURING CO., INC. Haverhill, MA (P staple - captive)

GENERAL FIBERS & FABRICS, INC. La Grange, GA (P film)

GEORGIA SYNTHETICS, INC. Elberton, GA (E & P yarn, monofil & film)

GFF HOLDING COMPANY (formerly N.S.I., INC.) La Grange, GA (P film - captive)

HERCULES INCORPORATED, HERCULES ENGINEERED POLYMERS COMPANY Oxford, GA *Herculon* (P yarn & staple)

THE HOOVEN & ALLISON COMPANY Xenia, OH (P film)

INTEGRATED PRODUCTS, INC. Rome, GA (P staple)

J & J INDUSTRIES Dalton, GA (P yarn)

JAMES RIVER CORPORATION (formerly Crown Zellerbach Corp.) Washougal, VA (P spunbonded)

JOHNSON FILAMENTS Williston, VT (P monofil)

KIMBERLY-CLARK CORPORATION Corinth, MS, Balfour, NC, La Grange, GA & Neenah, WI *Accord, Duraguard, Evolution* (P spunbonded);*Cyclean, Evolution III* (P spunbonded/melt:lown & laminate)

LAMBETH CORPORATION New Bedford, MA *Lambeth* (E & P monofil)

LAWRENCE HOSE COMPANY Burlington, NC (E monofil - captive)

LORETEX, DIVISION OF OIVIND LORENTZEN, INC. Guilderland Center, NY (E film - captive)

MIRAFI INC (subsidiary of Dominion Textiles) Moultrie, GA (P film - captive)

THE OSTERNECK COMPANY Lumberton, NC (P film)

PHILLIPS FIBERS CORPORATION (subsidiary of Phillips 66 Company) Rocky Mount, NC, Seneca & Spartanburg, SC *Marvess* (P yarn, staple & tow) *Ryton* (sulfar - staple)

POLYLOOM CORPORATION OF AMERICA Dayton, TN *Polyloom* (P film)

UNITED STATES OF AMERICA (continued)

RANGER TEXTILE CORP. (formerly Gladding Cordage Corp.) Syracuse, NY (P monofil)

SARLON INDUSTRIES, INC. Miami, FL (P monofil & film)

SHAKESPEARE MONOFILAMENT DIVISION Columbia, SC (P monofil)

SHUFORD MILLS, INC. Hickory, NC (P film)

SOLUTION FIBERS, INC. Lafayette, GA (P yarn)

SOUTHERN WEAVING, INC. Greenville, SC (P yarn)

STEVENS FIBER DIVISION, STEVENS LINEN ASSOC., INC. Dudley, MA (staple)

SUNBURST YARNS Afton, VA (P yarn)

SUNSHINE CORDAGE CORPORATION Miami, FL (E & P monofil)

SYNTHETIC INDUSTRIES Chickamauga & Dalton, GA (P film & staple - captive)

SYNTHETIC INDUSTRIES, FIBRON DIVISION Chattanooga TN *Fibri-Cord, Fibri-Knit, Fibri Lawn, Fibrilon* (P film)

TECHLON FIBERS CORPORATION Dalton, GA (P yarn)

TECHNOTRADE Dalton, GA (P yarn)

TRUSTITE DIVISION OF FIBRES SOUTH, INC. Clearfield, UT *Trustite, Tyrite* (P film)

TWINE PRODUCTS CORPORATION New Orleans, LA (P film)

UNITED STATES ROPE COMPANY Menlo Park, CA (P monofil)

WALL INDUSTRIES, INC. Granite Quarry, NC (E & P monofil)

WALTRICH PLASTIC CORPORATION Walthourville, GA (P monofil)

WAYN-TEX, INC. Waynesboro, VA *Beamette, Wayntuf* (E & P yarn & monofil & P film - captive)

WELLINGTON PURITAN MILLS (MONTAIR DIV.) Pilot Mountain, NC *Pur-Ty, Welltite* (P yarn & E & P monofil & film)

WELLINGTON SYNTHETIC FIBRES, INC. Leesville & Summerville, SC (P yarn & monofil)

TEXTILE PRODUCTS FROM OLEFIN

CALIFORNIA WEBBING (P yarn)

CONTINENTAL (P yarn)

CONWED CORP. Conwed Plastic Netting (P embossed film for netting)

UNITED STATES OF AMERICA (continued)

DICEY (P yarn)

E.I. DU PONT DE NEMOURS & COMPANY (INC.) (E & P embossed film for netting)

NALLE, INC. (P embossed film for netting)

RIEGEL PRODUCTS CORPORATION *Polyweb* (P meltblown)

THE 3M COMPANY (P spunbonded)

GLASS FIBER

CERTAINTEED CORPORATION, FIBER GLASS REINFORCEMENTS DIVISION Wichita Falls, TX *RO99, Satin Glass, Stichmat, Unifilo* (roving, woven roving, mat, chopped strand & combination product)

F.G.I. FIBERS, INC. Amsterdam, NY (roving & chopped)

GAF, BUILDING MATERIALS DIVISION Irwindale, CA (chopped), Nashville, TN (chopped)

GFT (GLASS FIBER TECHNOLOGY) Chester, SC (wet chopped for shingles)

LUNDY TECHNICAL CENTER Pompano Beach, FL *RoMHOglas* (metallized glass fiber roving, strand & mat)

MANVILLE CORPORATION Waterville, OH & Etowah, TN *Chop-Pak, Dura-Glass, Star Stran, Star Rov* (chopped strand, mat, sliver & roving)

NICOFIBERS INC. Shawnee, OH *Conformat, Consurmat, Surmat* (mat)

OMNI FIBER GLASS CORPORATION - DIVISION OF KOPPERS COMPANY Chino, CA (roving, chopped & milled)

OWENS-CORNING FIBERGLAS CORPORATION Huntingdon, PA, Aiken & Anderson, SC, Amarillo, TX *Araton, Beta, Bi-Ply, Fiberglas, S-Glass, S-2 Glass* (yarn, roving, woven roving, mat, chopped & milled)

PPG INDUSTRIES, INC., FIBER GLASS Lexington & Shelby, NC (yarn, roving, mat, chopped strand, woven roving & rubber reinforcement)

SUPERIOR GLASS FIBERS, INC. Bremen, OH (mat)

URUGUAY

HILADOS SINTETICOS S.A. (HISISA)
Nylon 66 — Estacion Manga, Montevideo *Hisilon* (yarn)

POLIMEROS URUGUAYOS S.A.
Polyester — San José, San José (staple)

SINTETICOS SLOWAK S.A.
Nylon 6 — Montevideo *Crofil* (yarn & monofil)

URUGUAY (continued)

SINTETICOS SLOWAK S.A. (continued)
Nylon 66 — Montevideo *Hisilon* (yarn)
Polyester — Montevideo *Terpol* (yarn)

SUDAMTEX del URUGUAY S.A.
Acetate — Colonia (yarn)

OLEFIN FIBER

ARYN S.A. Montevideo (E monofil)

CINCA S.A. Montevideo (E film)

ELABORADORA DE ARPILLERA SINTETICA S.A. (E film)

VENEZUELA

C.A. INVERSIONES ARAGUA
Nylon 6 — Maracay *Sudalon* (yarn)

GOMELAST, C.A.
Spandex — Caracas *Spandaven* (yarn)

HILADOS FLEXILON
Nylon 6 — Caracas (yarn)
Polyester — Caracas (yarn)

MANTEX, C.A.
Acetate — Valencia (yarn)
Polyester — Maracay, Valencia *Fortrel* (yarn & staple)

SUDAMTEX DE VENZUELA, C.A.
Polyester — Maracay (yarn & staple)

YUGOSLAVIA

HEMTEKS
Polyester — Skopje, Macedonia *Maklen* (yarn & staple)

INCEL FABRIKA CELULOZE I VISKOZE
Polyester — Banja Luka, Bosna i Hercegovina *Belira* (yarn)
Rayon — Banja Luka (staple)

INDUSTRIJA SINTETICKIK VLAKANA (PROGRES)
Nylon 6 — Prizren, Kosovo Mitohijan *Supralon* (yarn)
Polyester — Istok, Kosovo Mitohijan & Prizren *Prizrenit* (yarn)

KEMICNA TOVARNA MOSTE
Nylon 6 — Ljubljana, Slovenia *Yulon* (yarn)

ORGANSKO HEMIJSKA INDUSTRIJA SKOPJE (OHIS)
Acrylic — Skopje, Macedonia *Makrolan, Malon* (staple)

TEKSTILNA INDUSTRIYA "ZELE VELJKOVIC"
Nylon 6 — Leskovac* (yarn & staple)

VARAZDINSKI TEKSTILNI KOMBINAT (VARTEKS)
Polyester — Varazdin (staple)

YUGOSLAVIA (continued)

VISKOZA
Rayon — Loznica, Serbia (ind & reg yarn & staple)

OLEFIN FIBER

HEMIJASKA INDUSTRIJA U OSNIVANJU Belgrade (P staple)

GLASS FIBER

GOSTIVAR STAKLARA Staklara (roving & mat)

WORLDWIDE MAN-MADE FIBER PRODUCER AFFILIATIONS & PERCENTAGE OF CAPITAL OWNERSHIP

Licensing and royalty agreements are not taken into account. The ownership of companies, other than man-made fiber producers, is not listed; e.g., weaving mills, chemical producers, etc.

For each country, the percentage following the first-named producer is the portion owned by the captioned company; the remainder of the entry shows other ownership. For example, Akzo N.V. owns 40% of Fibras Quimicas and Alfa-Group owns 60%.

AKZO N.V. (NETHERLANDS)

Brazil	Companhia Bahiana de Fibras 45%; others 55%
	Polyenka 51%; others 49%
Colombia	Enka de Colombia 49%; others 51%
Ecuador	Enkador 49%; others 51%
Germany, Fed. Rep.	Enka 97%; public 3%
India	Century Enka 40%; others 60%
Mexico	Fibras Quimicas 40%; Alfa-Group 60%
Netherlands	Enka 100%
	Silenka 33.33%; PPG Industries 33.33%; others 33.33%
Spain	La Seda 57%; others 43%

AMERICAN CYANAMID COMPANY (U.S.A.)

U.S.A.	Fibers Division 100%

AMOCO CHEMICALS CORPORATION (U.S.A.)

Australia	Amoco Fabrics & Fibers Co. 100%
Brazil	Amoco Fabrics & Fibers Co. 100%
Canada	Amoco Fabrics & Fibers Co. 100%
Germany, Fed. Rep.	Amoco Fabrics & Fibers Co. 100%
U.K.	Amoco Fabrics & Fibers Co. 100%
U.S.A.	Amoco Fabrics & Fibers Co. 100%

ASAHI CHEMICAL INDUSTRY CO. LTD. (JAPAN)

India	Baroda Rayon Corp. 1%; local interests 89%; others 10%
Indonesia	P.T. Indonesia Asahi Chemical 51%; others 19%; local interests 30%
Ireland	Asahi Synthetic Fibres (Ireland) 85%; others 15%
Japan	Asahi Chemical 100%
Korea, Rep. of	Tong Yang Polyester 50%; Tong Yang Nylon 50%

BASF CORPORATION

BASF Corporation owns 100% of BASF Corporation Fibers Division and owns 100% of BASF Fibres Inc.

BAYER A.G. (WEST GERMANY)

Belgium	Bayer Antwerpen N.V. 100%
Germany, Fed. Rep.	Bayer A.G. 100%
	Faserwerke Lingen G.m.b.H. 100%
Iran	Sherkat Sahami Aliaf 50%
Peru	Bayer Industrial S.A. 60%

COURTAULDS, PLC (U.K.)

France	Courtaulds S.A. 100%
Italy	Novaceta S.p.A. 50%; SNIA 50%
Spain	Courtaulds Fibres S.A. 100%
	INACSA 12%; public 88%
U.K.	Courtaulds Fibres Ltd. 100%
U.S.A./Canada	Courtaulds North America Inc. 100%

E. I. DU PONT DE NEMOURS & COMPANY (U.S.A.)

Argentina	Ducilo 82%; Bunge & Born 18%
Brazil	Du Pont do Brasil 100%
Canada	Du Pont Canada 75%; public 25%
Germany, Fed. Rep.	Du Pont de Nemours (Deutschland) 100%
Japan	Toyo Products 50%; Toray Industries 50%
Luxembourg	Du Pont Fibres 100%
Mexico	Nylon de Mexico 40%; Alfa-Group 51%; public 9%
Netherlands	Du Pont de Nemours (Nederland) 100%
U.K.	Du Pont (U.K.) 100%
U.S.A.	Textile Fibers Department 100%
	Polymer Products Department 100%

FIRESTONE TIRE & RUBBER COMPANY (U.S.A.)

Canada	Firestone Textiles Co. 100%
U.S.A.	Firestone Fibers & Textiles 100%

HARBOUR GROUP LTD. (U.S.A.)

U.K.	Synthetic Industries (Ireland) PLC 100%
U.S.A.	Fibron Corp. of Tennessee 100%
	Synthetic Industries, Inc. 100%
	Synthetic Industries (Texas), Inc. 100%

HERCULES INCORPORATED (U.S.A.)

Italy	Moplefan 50%; Montedison 50%
U.S.A.	Hercules 100%

HOECHST A.G. (WEST GERMANY)

Austria	Austrial Faserwerke; Hoechst Austria 51%; Lenzing 49%
Belgium	Celanese S.A. 100%
Brazil	Cia. Brasilera de Sintéticos 100%
Canada	Celanese Canada Inc. 56%; public 44%
Germany, Fed. Rep.	Hoechst 100%
	Zehlendorf 91%; others 9%
Mexico	Celanese Mexicana, S.A. 40%; public 60%
South Africa	Hoechst South Africa 100%
U.K.	Hoechst Fibre Industries 100%
U.S.A.	Hoechst Celanese Corporation 100%
	Celanese Fibers, Inc. 100%

IMPERIAL CHEMICAL INDUSTRIES LIMITED (U.K.)

ICI owns 62% of ICI Australia Ltd., which in turn owns Fibremakers Ltd. of Australia

Germany, Fed. Rep.	ICI Europa Fibres G.m.b.H. 100%
India	Chemicals & Fibres of India Ltd. 55%
Pakistan	ICI Pakistan Manufacturers 70%
Portugal	Finicisa-Fibras 50%; Francisco Fino Ltd. 50%
South Africa	S.A. Nylon Spinners (through AECI Ltd.) 40%
Spain	Nurel S.A. 50%; local interests 50%
U.K.	ICI Fibres 100%

KURARAY CO., LTD. (JAPAN)

Indonesia	Kuraray 40%; Marubeni 30%; local interests 30%
Japan	Kuraray 100%

MITSUBISHI RAYON (JAPAN)

Japan	Mitsubishi Acetate 100% Mitsubishi Rayon 100%
Portugal	FISIPE 4%; Mitsubishi Corp. 9%; Quimigal 87%
Taiwan	Tong Hwa 19%; Mitsubishi Corp. 12%; others 69%

MONTEFIBRE S.p.A. (ITALY)

Italy	Società Italiana Poliestere S.p.A. 100%; Società Italiana Prodotti Acrilici S.p.A. 100%, Industrie Tessili Vercelli S.p.A. 100%, Società Industriale Cremonese S.p.A. 50%; others 50%
Spain	Montefibre Hispania S.A. 87%; others 13%

OWENS-CORNING FIBERGLAS CORPORATION (U.S.A.)

Belgium	Owens-Corning Fiberglas Europe 100%
Brazil	OCFIBRAS 100%
Canada	Fiberglas Canada 49%; Duplate Canada 49%; local interests 2%
France	Owens-Corning Fiberglas Europe 100%
Japan	Asahi Fiber Glass 28%; Asahi Glass Co., Ltd. 72%
Mexico	Vitro-Fibras 40%; Vitro Group 60%
Norway	Owens-Corning Fiberglas Europe 70%; Elkem-Spigerverket 30%
Spain	Owens-Corning Fiberglas Europe 100%
Sweden	Owens-Corning Fiberglas Europe 100%
U.S.A.	Owens-Corning Fiberglas 100%

PPG INDUSTRIES (U.S.A.)

Netherlands	Silenka 33.33%; Akzo N.V. 33.33%; NOM 33.33%
U.S.A.	Fiber Glass Products 100%

PILKINGTON BROTHERS (U.K.)

Argentina	VASA 99.7%; Glaverbel/Boussois/local interests 0.3%
India	Fibreglass Pilkington 50%, plus 1 share; Indian interests 50%, less 1 share
South Africa	Fibreglass South Africa 24.5%; Owens-Corning Fiberglas (U.S.A.) 24.5%; Plate Glass & Shatterprufe Industries Ltd. 51%
U.K.	Fibreglass PLC 100%

RHÔNE-POULENC S.A. (FRANCE)

Argentina	Rhodia Argentina Química e Têxteis 100%
Brazil	Rhodia S.A. 100%; Rhodia Nordeste 99%
France	Rhône-Poulenc-Textile 99.9%; Rhône-Poulenc Fibres 100%; Cellatex 100%; Rhovyl 100%
Germany, Fed. Rep.	Rhodia A.G. 100%
Spain	SAFA 60%
Switzerland	Viscosuisse (through Holva AG) 87%

SAINT-GOBAIN (FRANCE)

France	Saint-Gobain Industries 100%
Germany, Fed. Rep.	Gevetex-Textilglas 100%
Italy	Vetrotex Italia 100%
Spain	Cristaleria Espanola S.A. 69%
U.S.A.	CertainTeed Corp. 55%; others 45%

SNIA FIBRE (ITALY)

France	Ets. Nysam 100%
Italy	Novaceta 50%; Courtaulds (U.K.) 50%

TEIJIN LTD. (JAPAN)

Indonesia	P.T. Tifico 65.8%; Toyo Menka 16.5%; local interests 17.7%
Japan	Teijin 100% Teijin Acetate 100%
Korea , Rep. of	Sunkyung Fibres 5.5%; local interests 94.5%
Thailand	Teijin Polyester 45%; local interests 55%

TORAY INDUSTRIES, INC. (JAPAN)

Indonesia	P.T. Indonesia Toray Synthetics 59%; others 41%
Japan	Toray Industries 100%; Toray-Monofilament 100%; Toray-DuPont 50%, DuPont 50%
Korea, Rep. of	Cheil Synthetic Textiles 22.8%; others 77.2% Kolon Industries 19.3%; others 80.7%
Malaysia	Penfibre SDN. Berhad 100%
Thailand	Toray Nylon Thai 30%; others 70%

WELLMAN, INC. (U.S.A.)

Ireland	Wellman International 100%
U.S.A.	Man-Made Fiber Division 100%

TABLE 10:
SELECTED U.S. MAN-MADE FIBER IMPORTS FOR CONSUMPTION BY COUNTRY OF ORIGIN

THOUSAND POUNDS

ITEMS & COUNTRY	1987 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR TO DATE 1987	1986
CELLULOSIC YARN, MONOFIL & STRIPS														
BRAZIL	86	29	0	28									143	191
CANADA	425	368	175	323									1291	1148
GERMANY, FED. REP. OF	442	229	561	363									1595	2143
JAPAN	209	10	39	39									297	211
KOREA, REP. OF	1	0	0	0									1	300
MEXICO	3	15	10	102									130	257
NETHERLANDS	101	43	105	147									396	776
ALL OTHER COUNTRIES [a]	0	141	1	43									185	707
TOTAL CELLULOSIC YARN	1267	835	891	1045									4038	5733
CELLULOSIC STAPLE+TOW														
AUSTRIA	0	40	0	0									40	385
CANADA	749	1188	1356	1230									4523	3430
JAPAN	59	168	168	18									413	454
MEXICO	0	0	0	0									0	542
UNITED KINGDOM	46	5	73	24									148	293
ALL OTHER COUNTRIES [b]	131	23	63	106									323	506
TOTAL CELLULOSIC STAPLE+TOW	985	1424	1660	1378									5447	5610
NONCELLULOSIC YARN, MONOFIL & STRIPS														
AUSTRALIA	4	19	17	5									45	49
AUSTRIA	0	17	6	5									28	239
BELGIUM	1408	1377	559	560									3904	3881
CANADA	890	1976	1613	1605									6084	3861
COSTA RICA	729	515	642	589									2475	1867
FRANCE	686	685	659	648									2678	2022
GERMANY, FED. REP. OF	1744	2397	2421	2740									9302	4565
IRELAND	81	58	0	0									139	88
ISRAEL	162	233	90	249									734	1232
ITALY	1202	866	1292	1254									4614	3372
JAPAN	964	570	670	661									2865	2911
MEXICO	1167	2037	2527	1939									7670	3199
NETHERLANDS	93	184	151	99									527	322
ROMANIA	32	0	25	24									81	135
SOUTH AFRICA	88	0	0	0									88	2882
SWITZERLAND	253	+	64	2									319	151
TAIWAN	14	2	63	46									125	266
UNITED KINGDOM	735	39	844	894									2512	1742
ALL OTHER COUNTRIES [c]	172	785	253	174									1384	591
TOTAL NONCELLULOSIC YARN	10424	11760	11896	11494									45574	33375
NONCELLULOSIC STAPLE+TOW														
AUSTRALIA	0	0	0	0									0	94
BELGIUM	21	36	18	18									93	139
BRAZIL	0	438	236	379									1053	117
CANADA	3125	3071	3201	2248									11645	7793
FRANCE	955	588	532	585									2660	3725
GERMANY, FED. REP. OF	2586	2611	2194	2463									9854	11378
IRELAND	109	0	0	0									109	82
ISRAEL	62	0	31	0									93	251
ITALY	2265	1616	2200	980									7061	6014
JAPAN	1849	1623	2230	2472									8174	7138
KOREA, REP. OF	935	844	655	614									3048	1486
MEXICO	1586	1554	1784	824									5748	4390
ROMANIA	372	86	590	88									1136	456
SOUTH AFRICA	0	0	0	0									0	193
SWITZERLAND	71	139	198	89									497	208
TAIWAN	1911	1487	1338	2580									7316	7764
UNITED KINGDOM	777	1280	1522	1264									4843	8581
ALL OTHER COUNTRIES [d]	133	108	265	344									850	846
TOTAL NONCELLULOSIC STAPLE+TOW	16757	15481	16994	14948									64180	60655

\+ Nominal quantity.

Other countries supplying 1987 quantities are:

a. Austria 181, France 3, Belgium 1.

b. Italy 198, Sweden 91, Germany, Fed. Rep. of 23, France 7, Finland 3, Belgium 1.

c. Yugoslavia 596, Singapore 183, Korea, Rep. of 104, China,PRC 94, Denmark 93, Finland 61, Argentina 55, Spain 44, Turkey 39, Morocco 33, Norway 32; Philippines 27, Chile 14, Thailand 4, Brazil 3, Greece 1, Iceland 1, Hong Kong.

d. Austria 332, Malaysia 238, Denmark 116, Costa Rica 51, Hong Kong 40, Turkey 37, China,PRC 17, Netherlands 16, Portugal 2, Sweden 1, Philippines.

TABLE 11:
U.S. MAN-MADE FIBER IMPORTS FOR CONSUMPTION

THOUSAND POUNDS

ITEM	COMMODITY NUMBER AS OF 1/1/87	1987 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR TO DATE 1987	1986
CELLULOSIC FIBERS															
YARN - SINGLES															
TEXTURED	310.0106 & .0206	29	139	0	45									213	87
OTHER	310.0130 & .0230[a]	1237	691	891	1000									3819	5295
MONOFILAMENTS	309.0310 & .0610	0	5	0	0									5	11
STRIPS, $1/LB & UNDER	309.2000*	1	0	0	0									1	340
SUBTOTAL ABOVE		**1267**	**835**	**891**	**1045**									**4038**	**5733**
STAPLE	309.4320 & .4325	867	1402	1569	1336									5174	5215
GROUPED FILAMENTS	309.3010 & .3310	118	22	91	42									273	395
SUBTOTAL ABOVE		**985**	**1424**	**1660**	**1378**									**5447**	**5610**
WASTE, ADVANCED&NOT ADVANCED	309.6515 & .7510	0	0	0	7									7	33
NONCELLULOSIC FIBERS															
YARN - SINGLES															
TEXTURED - NYLON															
LESS THAN 450	310.0107 & .0207	142	163	113	123									541	687
MORE THAN 450	310.0108 & .0208	2592	2933	3169	3131									11825	5036
- POLYESTER	310.0110 & .0210	1000	2243	1670	1399									6312	4498
- OTHER	310.0114 & .0214	1876	2010	1396	1300									6582	6611
OTHER - NYLON	310.0149 & .0249	2008	2121	2350	2348									8827	5990
- POLYESTER	310.0150 & .0250	1918	1327	2088	2006									7339	7530
- OTHER	310.0170 & .0270[b]	417	486	610	680									2193	1546
MONOFILAMENTS	309.0200 & .0330[c]	272	281	265	263									1081	1016
STRIPS, OVER $1/LB	309.2100 & .2500*	199	196	235	244									874	461
SUBTOTAL ABOVE		**10424**	**11760**	**11896**	**11494**									**45574**	**33375**
STAPLE - NYLON	309.4331 & .4351	5346	4106	5357	3521									18330	15989
- POLYESTER	309.4336 & .4361	5335	5030	5122	4833									20320	12088
- ACRYLIC	309.4366	1216	839	1202	1285									4542	4384
- OLEFIN	309.4371	2	153	42	38									235	1022
- OTHER	309.4341 & .4390	479	1269	1233	1011									3992	8109
GROUPED FILAMENTS															
NYLON	309.3030 & .3200	3012	2523	2383	2409									10327	13202
POLYESTER	309.3040 & .3340	367	279	441	383									1470	585
ACRYLIC	309.3050 & .3350	861	1144	1073	1290									4368	4306
OTHER	309.3065 & .3365	139	138	141	178									596	970
SUBTOTAL ABOVE		**16757**	**15481**	**16994**	**14948**									**64180**	**60655**
WASTE, NOT ADVANCED															
- NYLON	309.6625	2279	2182	3100	1454									9015	7598
- POLYESTER	309.6630	1077	823	1475	867									4242	2255
- ACRYLIC	309.6645	20	53	0	18									91	6
- OTHER	309.6660	415	518	810	415									2158	2709
NOILS & GARNETTED FIBERS	309.7000*	0	0	0	0									0	59
OTHER WASTE, ADVANCED	309.7525 - .7555	42	153	67	638									900	1509
SUBTOTAL ABOVE		**3833**	**3729**	**5452**	**3392**									**16406**	**14136**
TOTAL MAN-MADE ABOVE		33266	33229	36893	32264									135652	119542
OTHER MAN-MADE FIBER TOPS, YARN & THREAD															
YARN - PLIED															
TEXTURED - CELLULOSIC	310.1506	0	0	+	0									0	30
- NONCELLULOSIC	310.1015[d]& .1205[e]	142	337	593	392									1464	4460
OTHER - CELLULOSIC	310.1030 & .1535[f]	8	85	7	43									143	13
- NONCELLULOSIC	310.1050 & .1070[g]	336	339	306	285									1266	204
SPUN YARN - CELLULOSIC	310.4005 & .4030[h]	151	112	165	134									562	669
- OTHER	310.4015 & .4027[i]	2574	3765	3232	3780									13351	12918
OTHER YARNS - NES, INCL. CHENILLE	310.6034 - .8000	1493	1673	1629	2004									6799	2718
HANDWORK YARNS & SEWING THREAD	310.9000 & .9310[j]	831	662	217	690									2400	1640
SLIVER, TOPS & ROVING	309.9000	383	279	281	607									1550	1240
TEXTILE GLASS FIBER	309.2800 & .2900[k]	1431	1672	1653	2285									7041	10096
GRAND TOTAL ABOVE		40615	42153	44976	42484									170228	153530

SOURCE: U.S. Census Bureau Report IM145X.
NES Not elsewhere specified.
+ Nominal quantity.
* These items are not reported by the Census as cellulosic vs. noncellulosic. Any seperation between cellulosic and noncellulosic is estimated, based mainly on average declared value.

a. Also includes 310.0610.
b. Also includes 310.0550, .0630 & .0650.
c. Also includes 309.0340, .0365, .0500, .0630, .0640 & .0665.
d. There may be some acetate yarn in these data, but the Census figures do not permit a segregation.
e. Also includes 310.1210.
f. Also includes 310.2110.
g. Also includes 310.1510, .1514, .1550, 1555, .1570, .2050, .2130 & .2150.
h. Also includes 310.5005 & .5030.
i. Also includes 310.4046, .4047, .4050, .5015, .5046, .5047, .5049 & .5051.
j. Also includes 310.9320 & .9500.
k. Chiefly roving. Also includes 309.9800 & .9900.

TABLE 12:
U.S. EXPORTS OF MAN-MADE FIBERS

THOUSAND POUNDS

ITEM	COMMODITY NUMBER AS OF 1/1/87	1987 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR TO DATE 1987	1986
CELLULOSIC FIBERS															
FILAMENT YARN [a]															
TEXTURED	310.0004	43	100	101	24									268	30
OTHER[b]	310.0026	475	365	639	468									1947	2423
MONOFILAMENTS	309.0110	0	0	0	2									2	51
STRIPS	309.2210	1	1	40	2									44	2
SUBTOTAL ABOVE		**519**	**466**	**780**	**496**									**2261**	**2506**
STAPLE+TOW-RAYON	309.4222	3930	1732	3107	2705									11474	10865
STAPLE-ACETATE	309.4219	33	112	156	112									413	662
SUBTOTAL ABOVE		**3963**	**1844**	**3263**	**2817**									**11887**	**11527**
WASTE, ADVANCED&NOT ADVANCED	309.7400	**231**	**169**	**47**	**134**									**581**	**761**
NONCELLULOSIC FIBERS															
YARN - SINGLES															
NYLON - TEXTURED	310.0005 & .0007	2678	2441	2542	2077									9738	7376
- HIGH TENACITY[c]	310.0027	7294	6373	5419	6719									25805	24294
- OTHER	310.0029	636	684	605	753									2678	4019
POLYESTER - TEXTURED	310.0010	2151	2949	3145	2473									10718	31658
- HIGH TENACITY[c]	310.0032	1691	1913	2308	1475									7387	7404
- OTHER[d]	310.0034	160	233	152	75									620	1142
OTHER - TEXTURED	310.0014	1053	1386	1502	1133									5074	12045
- OLEFIN	310.0040	74	35	53	55									217	1221
- OTHER	310.0044	389	577	654	748									2368	1815
MONOFILAMENTS, ALL DENIERS															
NYLON	309.0120	416	687	641	417									2161	1508
POLYESTER	309.0140	322	523	524	587									1956	2041
OTHER	309.0170	478	492	875	480									2325	1688
STRIPS	309.2220 & .2270	259	424	470	342									1495	1018
SUBTOTAL ABOVE		**17601**	**18717**	**18890**	**17334**									**72542**	**97229**
STAPLE - NYLON	309.4240	2060	1757	2615	1445									7877	4469
- POLYESTER	309.4242	18819	17019	16575	14494									66907	29924
- ACRYLIC	309.4245	4792	3355	2531	2440									13118	25288
- OLEFIN	309.4246	1893	2016	2642	2075									8626	5545
- OTHER	309.4247	1004	3194	2027	2959									9184	6356
GROUPED FILAMENTS															
NYLON	309.3220	283	737	386	275									1681	1100
POLYESTER[d]	309.3240	1941	1832	1578	2318									7669	8576
ACRYLIC	309.3250 & .3255	1653	2207	1805	1980									7645	10193
SUBTOTAL ABOVE		**32445**	**32117**	**30159**	**27986**									**122707**	**91451**
WASTE, ADVANCED&NOT ADVANCED															
- NYLON	309.7620	1021	1143	1095	1164									4423	2141
- POLYESTER	309.7630	2830	4549	5303	5570									18352	21569
- ACRYLIC	309.7640	1086	1362	1545	432									4425	2501
- OTHER	309.7660	2543	3090	5034	2174									12841	15550
SUBTOTAL ABOVE		**7480**	**10244**	**12977**	**9340**									**40041**	**41761**
TOTAL MAN-MADE ABOVE		**62239**	**63557**	**66116**	**58107**									**250019**	**245235**
TEXTILE GLASS FIBER	309.2700 & .9700	5992	6585	7160	7265									27002	18528
GRAND TOTAL ABOVE		**68231**	**70142**	**73276**	**65372**									**277021**	**263763**

SOURCE: U.S. Census Bureau Report EM522.

a. Includes thrown, singles and plied yarn.
b. Includes an undetermined amount of rayon tire cord and cord fabric.
c. Includes an undetermined amount of noncellulosic tire cord and cord fabric.
d. Includes zero twist yarns.

TABLE 13:
FILAMENT YARN DOMESTIC SHIPMENTS[a]

MILLION POUNDS

ITEM		ANNUAL DATA				QUARTERLY DATA 1986				QUARTERLY DATA 1987			
		1983	1984	1985	1986	1ST Q	2ND Q	3RD Q	4TH Q	1ST Q	2ND Q	3RD Q	4TH Q
(C) CELLULOSIC YARN[j]		*(N) NYLON*				*(P) POLYESTER*				*(O) OLEFIN*			
HOSIERY[b]	N	104.3	101.5	98.1	95.1	26.5	25.3	22.8	20.5	23.6			
OTHER CIRCULAR KNIT[c]	N	24.5	17.6	12.9	21.3	4.3	5.0	4.0	7.0	7.7			
	P	293.7	174.7	151.2	150.3	38.6	37.4	37.3	37.0	26.3			
	C	2.1	2.3	2.6	2.0	0.6	0.6	0.6	0.2	0.4			
FLAT KNIT	C	79.1	67.2	53.0	47.8	11.4	13.7	11.7	11.0	8.7			
	N	162.2	135.2	143.6	133.8	36.8	33.2	32.5	31.3	32.0			
	P	116.6	137.3	160.8	167.1	38.7	38.9	44.5	45.0	39.3			
CARPET FACE	N	734.6	770.2	815.4	881.4	207.0	217.8	235.6	221.0	228.5			
	O	147.2	154.1	202.1	215.7	49.7	50.5	53.9	61.6	58.4			
CARPET BACKING[d]	O	198.8	227.8	354.6	404.1	89.1	98.0	99.4	117.6	98.1			
OTHER BROAD WOVEN[e]	C	113.6	108.8	111.3	126.3	31.9	31.9	31.7	30.8	26.3			
	N	83.6	90.7	71.4	76.2	20.2	19.7	18.0	18.3	17.7			
	P	489.9	392.2	420.1	344.4	87.1	77.5	89.3	90.5	89.9			
	O	201.1	190.3	225.7	271.5	61.4	66.7	69.3	74.1	68.9			
NARROW WOVEN[f]	C	1.7	0.7	1.5	2.0	0.9	0.2	0.3	0.6	0.4			
	N	35.3	39.9	31.1	33.9	8.0	8.6	8.5	8.8	10.2			
	P	35.5	38.7	40.0	44.0	11.5	10.7	10.9	10.9	10.2			
	O	15.0	14.9	15.2	17.5	4.5	4.5	4.4	4.1	4.1			
TIRES, INCL. CHAFER[k]	N	145.5	172.9	146.0	134.2	35.8	33.5	30.5	34.4	38.8			
	P	174.1	174.4	155.5	159.3	44.7	37.4	39.5	37.7	41.1			
OTHER RUBBER INDUSTRY[g,k]	N	16.3	20.9	15.3	15.2	4.2	3.6	4.0	3.4	3.8			
	P	27.8	32.7	31.2	27.2	2.9	8.4	8.2	7.7	8.6			
ROPE, CORDAGE & FISHLINE	N	31.7	35.0	35.3	36.4	9.6	9.5	8.4	8.9	9.2			
	P	12.2	15.7	13.8	13.0	3.4	3.4	2.9	3.3	3.4			
	O	95.5	106.9	108.2	106.3	27.0	28.2	23.4	27.7	25.0			
ALL OTHER[h]	C	1.1	1.1	18.7	14.0	3.8	4.0	3.4	2.8	3.4			
	N	54.4	54.2	48.3	52.1	11.0	11.5	13.4	16.2	17.8			
	P	144.6	179.2	231.7	187.1	57.9	39.8	41.1	48.3	49.0			
	O	41.0	31.6	31.8	34.1	9.6	10.5	7.4	6.6	7.0			
TOTAL ABOVE	C	197.6	180.1	187.1	192.1	48.6	50.4	47.7	45.4	39.2			
	N	1392.4	1438.1	1417.4	1479.6	363.4	368.7	377.7	369.8	389.3			
	P	1294.4	1144.9	1204.2	1092.4	284.8	253.5	273.7	280.4	267.8			
	O	698.6	725.6	937.6	1049.2	241.3	258.4	257.8	291.7	261.5			
TOTAL DOMESTIC		3583.0	3488.7	3746.3	3813.3	938.1	931.0	956.9	987.3	957.8			
ALSO DIVIDED AS													
APPAREL		*1257.5*	*1072.1*	*1064.7*	*949.4*	*247.4*	*236.3*	*231.0*	*234.7*	*221.5*			
HOME FURNISHINGS		*1328.7*	*1354.2*	*1624.9*	*1746.8*	*405.5*	*419.7*	*454.8*	*466.8*	*446.2*			
INDUSTRIAL		*996.8*	*1062.4*	*1056.7*	*1117.1*	*285.2*	*275.0*	*271.1*	*285.8*	*290.1*			
SHIPMENTS OF FEED & PRODUCER-TEXTURED YARN (NONCARPET)[i]													
NYLON		127.1	118.7	114.9	115.8	29.7	31.3	28.5	26.3	29.1			
POLYESTER		832.4	675.5	776.3	634.6	168.9	144.0	158.1	163.6	149.3			
OLEFIN		28.0	23.3	22.3	22.9	5.1	5.8	5.9	6.1	6.1			

a. Filament yarn plus monofilament shipments by primary trade or end use; olefin includes spunbonded polypropylene but does not include spunbonded polyethylene.
b. Small quantities of polyester and cellulosic yarn are included in All Other.
c. Small quantities of olefin are included in All Other.
d. Small quantities of nylon and polyester are included in All Other.
e. Other Broad Woven except carpets, tire fabric, flat belting, etc. The olefin quantities only include other home furnishings applications.
f. Narrow Woven includes apparel ribbons and braids, auto seat belts and/or furniture webbing.
g. Small quantities of olefin are included in All Other.
h. All Other includes sewing thread and other industrial applications. The olefin quantities include sliver knit backing. Also includes indirect exports.
i. These quantities are included in the Total Domestic area above.
j. Data prior to 1985: acetate yarn only. Data for 1985-1987: acetate and rayon yarn.
k. Cellulosic yarn quantities included in All Other.

TABLE 14:
STAPLE+TOW DOMESTIC SHIPMENTS

MILLION POUNDS

ITEM		ANNUAL DATA				QUARTERLY DATA 1986				QUARTERLY DATA 1987			
		1983	1984	1985	1986	1ST Q	2ND Q	3RD Q	4TH Q	1ST Q	2ND Q	3RD Q	4TH Q
(R) RAYON	*(N) NYLON*	*(A) ACRYLIC+MODACRYLIC*				*(P) POLYESTER*				*(O) OLEFIN*			
HOSIERY, SWEATERS & CRAFT YARNS[a]	A	237.3	204.8	197.2	228.8	57.2	62.1	54.9	54.6	57.0			
	NPR	9.5	6.6	5.5	5.1	1.4	1.2	1.4	1.1	0.8			
PILE FABRICS[b]	A	33.0	30.0	24.5	23.2	6.0	6.6	6.2	4.4	5.6			
	P	18.2	18.4	14.9	15.0	4.1	3.5	3.9	3.5	4.4			
OTHER CIRCULAR KNIT + FLAT KNIT[c]	R	3.5	4.3	5.5	4.7	1.1	1.1	1.1	1.4	1.2			
	A	129.5	118.5	139.1	196.3	38.7	55.6	56.7	45.3	55.7			
	P	354.4	283.0	295.5	367.8	87.9	89.2	89.7	101.0	115.2			
BLANKETS[b]	A	27.1	25.2	30.2	26.7	6.6	6.7	7.7	5.7	5.9			
	P	10.5	5.5	6.2	3.7	0.8	1.0	1.3	0.6	1.3			
OTHER BROAD WOVEN	R	182.1	177.7	174.9	218.0	53.9	53.2	55.1	55.8	52.9			
	N	59.0	42.5	37.4	37.0	10.0	9.7	8.6	8.7	9.2			
	A	32.5	29.5	38.2	35.3	9.8	8.4	8.4	8.7	9.9			
	P	1062.9	1039.1	864.9	885.6	226.8	229.8	218.3	210.7	205.3			
	O	19.4	22.1	26.9	18.0	1.0	5.0	4.9	7.1	4.8			
CARPET FACE YARNS[f]	R	0.2	0.3	0.5	0.4	0.1	0.2	+	0.1	+			
	N	815.2	751.0	773.9	837.8	180.1	188.6	240.8	228.3	230.2			
	P	139.0	131.4	126.8	145.0	31.3	38.4	36.9	38.4	46.8			
	O	93.6	96.5	107.4	117.2	25.4	30.4	28.1	33.3	24.3			
FIBERFILL[d]	P	275.4	276.1	281.1	294.9	71.6	69.1	74.4	79.8	88.9			
FLOCK	NP	10.6	9.2	5.3	5.9	1.6	1.4	1.2	1.7	1.6			
	R	3.2	2.7	1.8	1.8	0.6	0.4	0.5	0.3	0.5			
NONWOVENS[e,f]	R	119.0	126.3	113.5	125.4	31.7	33.2	32.9	27.6	31.1			
	N	4.9	2.8	2.5	2.1	0.5	0.5	0.6	0.5	0.5			
	P	177.4	177.2	162.5	175.3	46.5	41.4	42.4	45.0	48.7			
	VINYON+O	61.5	119.2	135.8	166.2	42.3	45.2	41.1	37.6	49.4			
ALL OTHER	R	23.8	18.8	25.9	20.8	3.7	3.5	5.0	8.6	6.0			
	N	5.2	9.4	11.2	11.9	2.9	3.0	3.0	3.0	4.6			
	A	32.8	38.7	29.5	20.9	4.8	4.3	4.8	7.0	5.3			
	P	55.8	56.2	116.9	108.3	29.3	26.7	28.6	23.7	23.2			
	VINYON+O	8.9	3.1	9.6	11.3	5.2	2.0	2.3	1.8	2.6			
TOTAL ABOVE	**R**	**333.5**	**331.9**	**323.7**	**373.0**	**91.6**	**92.0**	**95.1**	**94.3**	**91.8**			
	N	**897.1**	**814.4**	**830.3**	**894.9**	**195.2**	**203.2**	**254.3**	**242.2**	**246.2**			
	A	**492.2**	**446.7**	**458.7**	**531.2**	**123.1**	**143.7**	**138.7**	**125.7**	**139.4**			
	P	**2099.2**	**1992.2**	**1872.7**	**1998.6**	**499.1**	**499.9**	**496.3**	**503.3**	**534.4**			
	VINYON+O	**183.4**	**240.9**	**279.7**	**312.7**	**73.9**	**82.6**	**76.4**	**79.8**	**81.1**			
TOTAL DOMESTIC		**4005.4**	**3826.1**	**3765.1**	**4110.4**	**982.9**	**1021.4**	**1060.8**	**1045.3**	**1092.9**			
ALSO DIVIDED AS													
APPAREL		*1461.3*	*1277.1*	*1255.0*	*1489.3*	*363.6*	*390.5*	*372.6*	*362.6*	*386.0*			
HOME FURNISHINGS		*1630.0*	*1559.0*	*1536.9*	*1625.8*	*371.0*	*385.1*	*436.8*	*432.9*	*425.1*			
INDUSTRIAL		*914.1*	*992.1*	*973.2*	*995.3*	*248.3*	*245.8*	*251.4*	*249.8*	*281.8*			

a. Olefin quantities are included in All Other.
b. Rayon and nylon quantities are included in All Other.
c. Nylon quantities are included in All Other.
d. Rayon, acrylic and nylon quantities are included in All Other.
e. Wet & dry laid and needled batts only.
f. Acrylic quantities are included in All Other.

TABLE 15:
SELECTED U.S. MONTHLY FIBER DATA
MILLION POUNDS

ITEM	1987 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR TO DATE[a] 1987	1986
					TOTAL SHIPMENTS[b]									
MAN-MADE FIBER DATA [c]														
YARN+MONOFILAMENTS														
CELLULOSIC YARN	14.6	13.7	15.9	16.5	16.1								76.8	91.6
NYLON[d] - INDUSTRIAL[e]	31.0	32.8	30.6	29.5	35.7								159.6	141.3
- CARPET	75.1	77.6	79.9	76.9	86.2								395.7	358.7
- TEXTILE[g]	30.5	30.4	33.5	32.1	32.4								158.9	156.4
POLYESTER - INDUSTRIAL[e]	26.6	27.6	29.4	27.7	28.0								139.3	132.8
- TEXTILE[g]	63.3	64.0	72.3	75.7	73.6								348.9	365.8
OLEFIN[f]	92.3	87.6	90.8	88.9	89.8								449.4	412.6
TOTAL NONCELLULOSIC ABOVE	318.8	320.0	336.5	330.8	345.7								1651.8	1567.6
STAPLE+TOW+FIBERFILL														
RAYON	34.1	29.7	36.1	33.2	31.6								164.7	165.5
NYLON[d]	84.1	81.2	86.2	88.7	91.1								431.3	338.1
ACRYLIC+MODACRYLIC	49.2	50.7	54.2	51.2	52.3								257.6	261.3
POLYESTER	184.8	192.2	205.6	195.1	193.4								971.1	889.5
OLEFIN+VINYON[h]	28.2	27.9	31.9	31.1	30.0								149.1	135.6
TOTAL NONCELLULOSIC ABOVE	346.3	352.0	377.9	366.1	366.8								1809.1	1624.5
					END-OF-MONTH STOCK									
YARN+MONOFILAMENTS														
CELLULOSIC YARN	17.9	18.2	16.8	15.2	14.7								14.7	12.2
NYLON[d] - INDUSTRIAL[e]	29.2	24.9	26.7	29.0	27.0								27.0	27.2
- CARPET	56.6	55.5	52.3	52.4	48.3								48.3	59.0
- TEXTILE[g]	49.6	49.4	46.5	47.2	47.6								47.6	45.8
POLYESTER - INDUSTRIAL[e]	30.6	30.0	27.8	29.0	28.5								28.5	28.9
- TEXTILE[g]	85.6	88.8	87.6	83.2	80.0								80.0	91.9
OLEFIN[f]	54.7	55.6	55.6	56.3	56.0								56.0	66.4
TOTAL NONCELLULOSIC ABOVE	306.3	304.2	296.5	297.1	287.4								287.4	319.2
STAPLE+TOW+FIBERFILL														
RAYON	24.3	26.1	23.8	24.7	25.9								25.9	18.4
NYLON[d]	59.3	53.8	58.7	57.7	56.4								56.4	88.0
ACRYLIC+MODACRYLIC	68.2	67.9	67.8	70.1	71.6								71.6	53.4
POLYESTER	178.0	169.8	162.3	162.4	171.7								171.7	150.4
OLEFIN+VINYON[h]	33.3	32.6	31.0	30.3	30.8								30.8	29.7
TOTAL NONCELLULOSIC ABOVE	338.8	324.1	319.8	320.5	330.5								330.5	321.5
WOOL & COTTON CONSUMPTION														
APPAREL CLASS WOOL	13.8	13.1	15.0	13.7									55.6	52.1
CARPET CLASS WOOL	0.8	0.8	1.2	1.3									4.1	3.5
TOTAL RAW WOOL	14.6	13.9	16.2	15.0									59.7	55.6
RAW COTTON	302.3	281.8	341.4	311.9									1237.4	1063.0

a. "Year-to-date" totals for stock, are the latest month's figures.
b. The monthly production of each fiber may be calculated as total shipments plus a stock increase, or less a stock decrease, over the month.
c. Producers' total domestic plus export shipments.
d. Data for nylon exclude Aramid.
e. Industrial is defined as 500 denier and coarser with an Instron tenacity of 7 grams or more per denier.
f. Olefin yarn+monofilaments also includes spunbonded polypropylene and film fiber produced for textile end uses.
g. Low denier industrial nylon and polyester included with Textile.
h. 1987 data excludes Vinyon.

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- Exports
- Inventories
- Industrial Yarn
- Carpet Yarn
- Textile Yarn
- Flat Yarn
- Feed & Producer Textured Yarn
- Shipments by Denier
- Indirect Exports

Quarterly
- Production
- Domestic Shipments
- Imports
- Exports
- Shipments by Denier
- Inventories
- Primary End Use
- Secondary End Use
- Waste Shipments

Semiannually & Annually
- Capacities
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